50T
13
85
109

13
85
NET CO
1109

SWD

C. Distribution System

This section of the report provides a detailed description of the distribution system asset condition for overhead lines and underground cables. It brings together all the available distribution infrastructure information from a variety of different sources including the inspection and maintenance program[49] and provides a balanced view of the condition and performance issues affecting the network.

The distribution system is generally in sound condition. National Grid continues to gather data and monitor assets in a proactive manner to ensure that any increasing trends are identified and the system is fit for purpose.

Table III-62 summarizes the distribution overhead line and underground cable assets.

Table III-62
Summarized Distribution Line Asset Quantities

Main Asset	Inventory
Poles	1,232,500
Transformers: Pad/Pole/Underground	446,600
Primary Conductor (Circuit Miles)	35,900 miles
Cutouts	260,500
Switchgear	3,100
Capacitor Banks	4,700
Reclosers/Sectionalizers	1,040
Line Regulators	3,400
Primary Underground Cable (Circuit Miles)	6,900 miles
Manholes	16,800
Vaults	1,800

This following subsections will discuss asset categories such as overhead lines (structures, transformers and other ancillary equipment), underground equipment (cables, vaults and manholes, and other equipment), and large programs (Reliability Enhancement Program, Engineering Reliability Reviews, and others). Where necessary further information is provided in the exhibits referenced throughout this document.

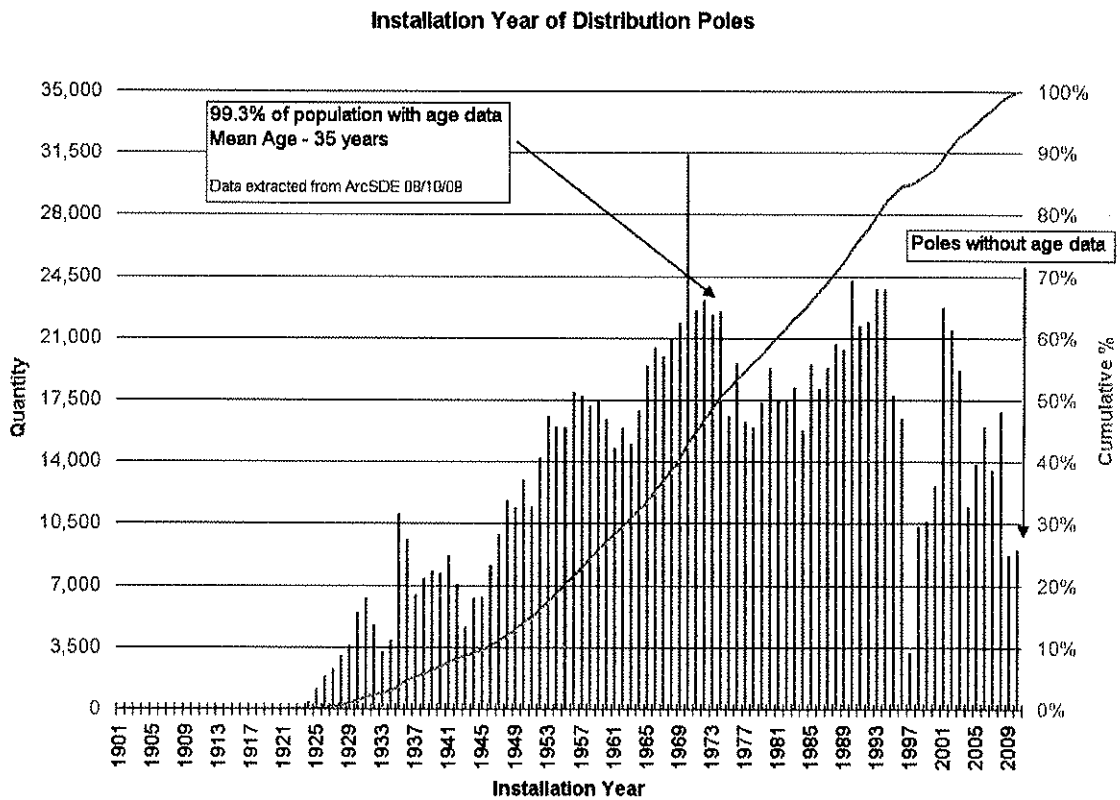
[49] The Inspection and Maintenance (I&M) strategy is the primary means of assessing, collecting and addressing issues on the overhead and underground electric system. The I&M program allows the Company to assess the condition of distribution and sub-transmission assets to structure a proactive replacement plan for each asset. Ultimately, the I&M will create a higher level of discipline in maintaining system components that do not need immediate replacement. Most importantly, the beneficial impact on the safety and reliability of the system will be discernible by customers because the operating integrity will be raised and maintained at a relatively high level.

Overhead Lines

Structures

Distribution structures include towers, poles, crossarms, guys, and anchors. Distribution structures are in generally good condition with more than 96 percent of structures inspected in acceptable condition. There are approximately 1.23 million distribution poles on National Grid's New York system with an average age of 35 years (Figure III-21). Approximately 24 percent of the total population of wood poles is more than 50 years old and approximately twelve percent are more than 60 years old. The following information addresses all poles regardless of material.[50] Distribution assets are also attached to approximately 24,400 transmission and/or sub-transmission structures. The condition of those structures is discussed in either the transmission or sub-transmission section of this report rather than this section, as the distribution component is ancillary to the structure.

Figure III-21
Age Profile of Distribution Poles



[50] Fewer than 500 (0.04 percent) of distribution poles are made of a material other than wood (i.e. concrete, fiberglass, or steel).

Condition and Performance Issues

Between December 1, 2008 and August 10, 2009, inspections were completed on 188,800 distribution poles, which represent approximately 15 percent of the population. Based on these inspections, 1.9 percent of the inspected poles, approximately 3,600 poles, are candidates[51] for replacement over the next three years. The 1.9 percent replacement candidate rate for 2009 inspections is nominally equal to the 2008 inspections at 2.4 percent. Table III-63 and Figure III-22 shows the results of all pole related priority codes. The majority of the listed codes will not result in pole replacement. The 2008 summary data includes codes from September 4, 2008 to November 30, 2008 that were not included in the 2008 report due to the fact that that report was filed prior to the end of 2008. Also, the table includes survey results that did not result in pole replacement.

Table III-63
Distribution Wood Poles Inspection Results

Level	Replace Codes			Repair Codes		
	Number of Poles*	Percent Codes vs. Inspections**	Percent Completed	Number of Poles*	Percent Codes vs. Inspections**	Percent Completed
2008 Summary (including data between 9/4/08 and 11/30/08)						
Acceptable Condition	266,768	96.71%		271,170	98.31%	
1	23	0.01%	100%	2	0.00%	100%
2	1,631	0.59%	86%	145	0.05%	96%
3	7,411	2.69%	22%	4,516	1.64%	27%
Total	275,833	100.00%		275,833	100.00%	
2009 Progress to Date (8/10/09)						
Acceptable Condition	184,572	97.74%		186,634	96.59%	
1	11	0.01%	100%	0	0.00%	100%
2	918	0.49%	3%	90	0.53%	12%
3	3,332	1.76%	3%	2,109	2.88%	3%
Total	188,833	100.00%		188,833	100.00%	

*These numbers reflect priority codes against poles; individual poles may have more than one code against it.
**Percent codes versus inspections compares the number of assets with recorded priority codes to the number of assets inspected.

While only 15 percent of the distribution wood poles have been inspected in 2009, the Company has no reason to believe that future pole inspection results will not produce similar results with respect to pole condition. However if there are significant differences, these will become known within the five year inspection cycle.

[51] Poles identified through the inspection program are referred to as candidates because a small percentage may be double counted due to missing GISID data in the Computatpole database and early replacements of Level 3 poles due to other construction projects.

Figure III-22
Install Year Profile Inspected versus to be Replaced

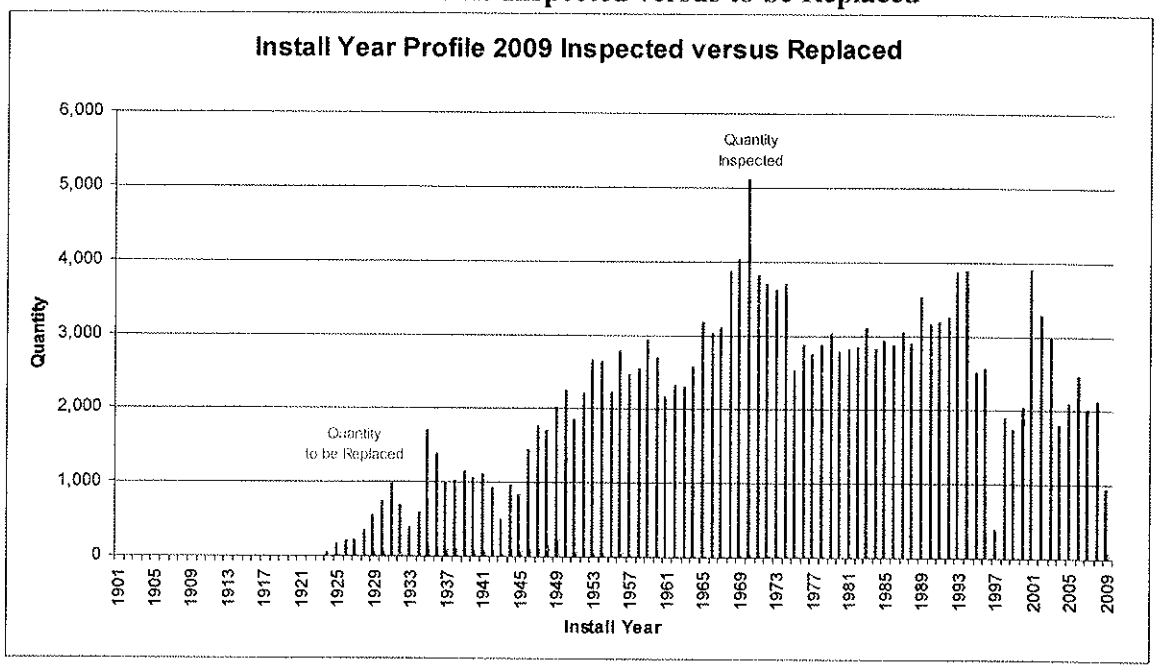
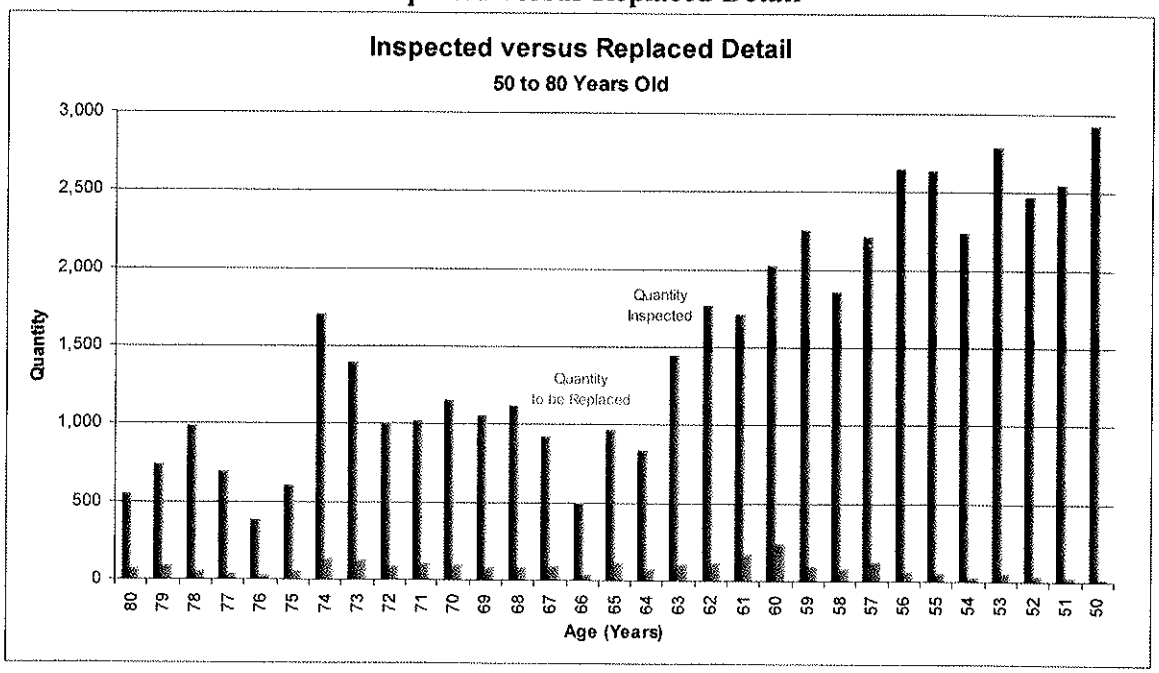


Figure III-23
Inspected versus Replaced Detail



Figures II-22 and II-23 above compare the installation year profiles of poles inspected compared to poles that are candidates for replacement based on inspection. This profile is

very consistent with the 2008 profile showing increased replacements between 50 years to 80 years.

In addition to distribution system pole replacement candidates, inspections look for issues with crossarms, guys and anchors. The type of condition issues include damaged crossarms, loose pins and braces, excessive slack, broken guy wires, or a need for anchors.

Crossarms, braces and pins are commodity type assets which are not tracked individually if their condition is found acceptable, however estimates can be made on the number of assets inspected. As the inspections represent approximately 15 percent of the pole plant, it can be reasonably assumed that this is approximately the same percentage of these commodity assets reviewed. The percentage of codes returned for crossarms and braces is nominally equal comparing the complete 2008 data (1.6 percent) to the partial 2009 data (1.5 percent). Tables III-64 and 65 provides the condition assessment for these assets.

Table III-64
Crossarms, Pins and Braces Inspection Results

Level	Crossarms		Braces and Pins	
	Number of Assets	Percent Codes Completed	Number of Assets	Percent Codes Completed
2008 Summary (including data between 9/4/08 and 11/30/08)				
Acceptable Condition	-	-	-	-
1	23	100%	23	100%
2	349	94%	379	94%
3	1,600	31%	1,937	25%
Total	1,972		2,339	
2009 Progress to Date (8/10/09)				
Acceptable Condition	-	-		
1	4	100%	11	100%
2	124	10%	274	17%
3	691	4%	1,675	2%
Total	819		1,960	

Table III-65
Guys and Anchors Inspection Results

Level	Guys*			Anchors*		
	Number of Assets	Percent Codes vs. Inspections	Percent Codes Completed	Number of Assets	Percent Codes vs. Inspections	Percent Codes Completed
2008 Summary (including data between 9/4/08 and 11/30/08)						
Acceptable Condition	24,207	85.24%		28,315	98.70%	
1	4	0.01%	100%	0	0.00%	100%
2	1,388	4.89%	81%	56	0.20%	91%
3	2,801	9.86%	24%	29	0.10%	41%
Total	28,400	100.00%		28,400	100.00%	
2009 Progress to Date (8/10/09)						
Acceptable Condition	17,304	81.24%		21,205	99.55%	
1	0	0%	100%	0	0%	100%
2	2,205	10.35%	12%	74	0.35%	11%
3	1,791	8.41%	3%	21	0.10%	29%
Total	21,300	100.00%		21,300	100.00%	

*Assuming one guy per anchor. These numbers reflect priority codes against guys and anchors, individual guys and anchors may have more than one code against them.

Overall, these quantities are at or below historical levels and do not present a growing concern. Neither crossarms nor pins/braces are objects within the Geographic Information System (GIS); therefore quantities cannot be calculated directly. Using a rough estimate based on construction type, it is estimated that approximately 220,000 crossarms and 810,000 pins/braces were inspected. Using this estimate, reported maintenance codes for both these items is less than one percent of the population, indicating an overall healthy asset condition.

Remedial Actions Performed or Planned

Approximately 3,080 poles were replaced to date as a result of the 2008 inspections in addition to the 2,560 replaced by the targeted pole replacement program in FY09. Thus far approximately 50 percent of the pole candidates identified in the 2008 inspections have been replaced, including 100 percent of Level 1 and 86 percent of Level 2 codes. Thus far in 2009, approximately 160 poles were replaced as a result of the 2009 inspections in addition to 370 poles (as of the end of August, 2009) replaced by the targeted pole replacement program for FY10. More than 720 poles are planned for replacement as part of the FY10 targeted pole replacement program.

Work associated with pole maintenance is captured by the I&M Program and the Reliability Enhancement Program (Feeder Hardening and Enhanced Infrastructure).

Technical Presentation to the State of New Hampshire Appraisal Standards Board Sub-committee 9-10-2015

Regarding the Valuation of Telephone Poles

Presented and prepared by George E. Sansoucy, P.E., LLC
Engineers and Appraisers

Discussion Items:

- 1. Pole types
- 2. Pole Installations
- 3. Pole Ownership
-
- 4. Work load distribution state-wide
- 5. Pole usage – electric, ground wire, cable, municipal, telephone (Photos 1 - 5)

Pole cost reporting:

- 6. Pole cost reporting
  - COOP – Brentwood – Mass Accounting
  - PSNH – Brentwood – Continuing Property Records
- 7. What they report – not same for each utility
- 8. Electronic inventory – Cost and age, Year Installed, Total cost Installed

Cost per pole - COOP:

- 9. Cost per pole – installed – COOP
  - COOP – build up
  - COOP – cost sheet – RS Means
  - COOP – work orders
  - COOP – sample – Brentwood

Cost per pole – PSNH:

- 10. Cost per pole installed – PSNH
  - PSNH – original cost by year
  - Handy Whitman trend
  - Trended original cost

Depreciation - Book Life Versus Actual:

- 11. Depreciation Book Life
  - Book lives = Book Depreciation
  - Net Book is the Result
  - Sansoucy study versus Book lives
  - Book Depreciation - Property values go to Nil or zero and property escapes taxation

Depreciation - Book Life Versus Actual

CONTINUED:

- 12. Depreciation - Actual
  - Actual useful lives
  - Sansoucy life table
  - Depreciation field studies
  - NARUC -National Association of Regulatory Utility Commissioners
  - Depreciation floor to the good

Continued:

- NIMO Study - Utility
- Wood pole institute
- Many other treatises and specifications
- Difference in value between actual and book life

Final Value Estimate:

- 14. Final Value Estimate
  - Cost new less Depreciation
  - Automated
  - Need correct reporting

Final Value Estimate Continued:

- No functional obsolescence
- Economic obsolescence - Market and Income driven and applied to the total
- Telephone - economic - obsolescence

Poles

TOWNSHIP	OWNER	GIS HEIGHT	age	Sum Of Item Count	UNIT COST Pole	UNIT COST Attachments	Poles Only	EXT. COST
BRENTWOOD		35	35	1	$0.00	$120.00	0	120.00
BRENTWOOD		35	66	1	$0.00	$120.00	0	120.00
BRENTWOOD		40	14	1	$0.00	$120.00	0	120.00
BRENTWOOD		30	3	1	$0.00	$120.00	0	120.00
BRENTWOOD		30	26	1	$0.00	$120.00	0	120.00
BRENTWOOD		35	17	1	$0.00	$120.00	0	120.00
BRENTWOOD		35	18	1	$0.00	$120.00	0	120.00
BRENTWOOD		35	35	1	$0.00	$120.00	0	120.00
BRENTWOOD		40	3	1	$0.00	$120.00	0	120.00
BRENTWOOD		40	7	1	$0.00	$120.00	0	120.00
BRENTWOOD		40	12	5	$0.00	$120.00	0	600.00
BRENTWOOD		40	48	1	$0.00	$120.00	0	120.00
BRENTWOOD		45	3	1	$0.00	$120.00	0	120.00
BRENTWOOD		45	5	2	$0.00	$120.00	0	240.00
BRENTWOOD	50%	35	0	1	$56.29	$120.00	56.29	176.29
BRENTWOOD	NHEC	0	0	2	$199.05	$120.00	398.1	638.10
BRENTWOOD	NHEC	0	66	1	$199.05	$120.00	199.05	319.05
BRENTWOOD	NHEC	25	0	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	25	28	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	25	30	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	25	31	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	25	35	4	$221.63	$120.00	886.52	1,366.52
BRENTWOOD	NHEC	30	2	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	3	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	5	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	7	2	$221.63	$120.00	443.26	683.26
BRENTWOOD	NHEC	30	9	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	12	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	14	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	15	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	18	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	19	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	22	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	23	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	26	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	29	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	30	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	35	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	37	2	$221.63	$120.00	443.26	683.26
BRENTWOOD	NHEC	30	39	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	43	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	30	45	1	$221.63	$120.00	221.63	341.63
BRENTWOOD	NHEC	35	0	3	$317.61	$120.00	952.83	1,312.83
BRENTWOOD	NHEC	35	12	1	$317.61	$120.00	317.61	437.61
BRENTWOOD	NHEC	35	29	3	$317.61	$120.00	952.83	1,312.83
BRENTWOOD	NHEC	35	30	2	$317.61	$120.00	635.22	875.22
BRENTWOOD	NHEC	35	31	4	$317.61	$120.00	1270.44	1,750.44
BRENTWOOD	NHEC	35	32	1	$317.61	$120.00	317.61	437.61
BRENTWOOD	NHEC	35	33	1	$317.61	$120.00	317.61	437.61
BRENTWOOD	NHEC	35	35	16	$317.61	$120.00	5081.76	7,001.76
BRENTWOOD	NHEC	40	0	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	1	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	3	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	4	2	$444.49	$120.00	888.98	1,128.98
BRENTWOOD	NHEC	40	5	7	$444.49	$120.00	3111.43	3,951.43
BRENTWOOD	NHEC	40	7	5	$444.49	$120.00	2222.45	2,822.45
BRENTWOOD	NHEC	40	8	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	9	8	$444.49	$120.00	3555.92	4,515.92
BRENTWOOD	NHEC	40	11	3	$444.49	$120.00	1333.47	1,693.47
BRENTWOOD	NHEC	40	14	7	$444.49	$120.00	3111.43	3,951.43
BRENTWOOD	NHEC	40	18	6	$444.49	$120.00	2666.94	3,386.94
BRENTWOOD	NHEC	40	20	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	21	1	$444.49	$120.00	444.49	564.49

Poles

TOWNSHIP	OWNER	GIS HEIGHT	age	Sum Of Item Count	UNIT COST Pole	UNIT COST Attachments	Poles Only	EXT. COST
BRENTWOOD	NHEC	40	27	2	$444.49	$120.00	888.98	1,128.98
BRENTWOOD	NHEC	40	28	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	30	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	33	3	$444.49	$120.00	1333.47	1,693.47
BRENTWOOD	NHEC	40	34	5	$444.49	$120.00	2222.45	2,822.45
BRENTWOOD	NHEC	40	35	9	$444.49	$120.00	4000.41	5,080.41
BRENTWOOD	NHEC	40	36	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	37	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	39	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	40	66	1	$444.49	$120.00	444.49	564.49
BRENTWOOD	NHEC	45	3	2	$541.08	$120.00	1082.16	1,322.16
BRENTWOOD	NHEC	45	5	1	$541.08	$120.00	541.08	661.08
BRENTWOOD	NHEC	45	9	3	$541.08	$120.00	1623.24	1,983.24
BRENTWOOD	NHEC	45	10	1	$541.08	$120.00	541.08	661.08
BRENTWOOD	NHEC	45	11	5	$541.08	$120.00	2705.4	3,305.40
BRENTWOOD	NHEC	45	12	3	$541.08	$120.00	1623.24	1,983.24
BRENTWOOD	NHEC	45	13	3	$541.08	$120.00	1623.24	1,983.24
BRENTWOOD	NHEC	45	14	8	$541.08	$120.00	4328.64	5,288.64
BRENTWOOD	NHEC	45	16	2	$541.08	$120.00	1082.16	1,322.16
BRENTWOOD	NHEC	45	18	1	$541.08	$120.00	541.08	661.08
BRENTWOOD	NHEC	45	35	1	$541.08	$120.00	541.08	661.08
BRENTWOOD	NHEC	45	68	1	$541.08	$120.00	541.08	661.08
BRENTWOOD	Phone	40	0	16	$0.00	$120.00	0	1,920.00
BRENTWOOD	TEL	30	37	1	$0.00	$120.00	0	120.00
BRENTWOOD	TEL	40	12	1	$0.00	$120.00	0	120.00
							-	-
Total Poles				202				88,831.54
Additions - from closed work orders				12				8,817.68
Revised Total				214				97,649.22

CPR LEDGER FIXED ASSET REPORT
NORTHEAST UTILITIES
PSNH PROPERTY AS OF 12/31/2011
Brentwood, NH

Year In Service	Accumulated Quantity	Accumulated Cost	GL Account	Plant Account	Description	Work Order
		$ 363,494.70	Account Total 361			
7/1/1970	6	1,622.93	10101	362	TRANSFORMER, STATION SERVICE 20- 25 KV	FATOCPRS
7/1/2006	3	29,277.58	10101	362	ARRESTER,LIGHTNING 26- 38 KV	A03N9501
7/1/2006	3	4,757.84	10101	362	ARRESTER,LIGHTNING 26- 38 KV	A03N9501
7/1/2006	3	12,432.07	10101	362	ARRESTER,LIGHTNING 81-250 KV	A03N9501
7/1/2006	2	50,405.37	10101	362	BATTERY,STORAGE	A03N9501
7/1/2006	1	6,303.83	10101	362	BUS, 26- 38 KV	A03N9501
7/1/2006	1	130,158.59	10101	362	CABINET,RELAYING/CARRIER/METERING	A03N9501
7/1/2006	1	4,186.22	10101	362	CABLE,CONTROL	A03N9501
7/1/2006	1	19,247.07	10101	362	CHARGER,BATTERY	A03N9501
7/1/2006	1	108,503.95	10101	362	CIRCUIT BREAKER 0- 38KV	A03N9501
7/1/2006	1	494,368.36	10101	362	GROUNDING SYSTEM	A03N9501
7/1/2006	1	10,850.39	10101	362	INSTALLATION,CIRCUIT BREAKER	A03N9501
7/1/2006	1	195,910.54	10101	362	INSTALLATION,POWER TRANSFORMER	A03N9501
7/1/2006	18	4,696.21	10101	362	INSULATORS, BUS SUPPORT 26- 38 KV	A03N9501
7/1/2006	1	75,015.27	10101	362	STRUCTURE, BUS	A03N9501
7/1/2006	4	60,039.00	10101	362	SWITCH, DISCONNECTING 26- 38 KV 3 POLE	A03N9501
7/1/2006	2	25,567.94	10101	362	SWITCH, DISCONNECTING 26- 38 KV 3 POLE	A03N9501
7/1/2006	1	30,506.51	10101	362	SWITCH, DISCONNECTING 81-250 KV 3 POLE	A03N9501
7/1/2006	1	133,858.82	10101	362	SWITCH, LOAD BREAK 81-250 KV 3 POLE	A03N9501
7/1/2006	2	37,134.09	10101	362	TRANSFORMER, INSTRUMENT 26- 38 KV	A03N9501
7/1/2006	1	489,529.25	10101	362	TRANSFORMER, POWER, CORE 81-250KV	A03N9501
7/1/2006	1	489,529.25	10101	362	TRANSFORMER, POWER, TANK/ANCILLARIES 81-250KV	A03N9501
7/1/2006	1	979,058.51	10101	362	TRANSFORMER, POWER, WINDINGS 81-250KV	A03N9501
7/1/2006	6	11,414.26	10101	362	TRANSFORMER, STATION SERVICE 20- 25 KV	A03N9501
11/1/2009	1	5,575.26	10101	362	CHARGER,BATTERY	DS9RD103
2/1/2010	1	50,003.60	10101	362	CABINET,SCADA	A07WI451
3/1/2011	1	15,220.79	10101	362	CABINET,SCADA	A05S2725
		$ 3,475,173.50	Account Total 362			
7/1/1953	5	41.72	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1953	1	28.61	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS

CPR LEDGER FIXED ASSET REPORT
NORTHEAST UTILITIES
PSNH PROPERTY AS OF 12/31/2011
Brentwood, NH

Year In Service	Accumulated Quantity	Accumulated Cost	GL Account	Plant Account	Description	Work Order
7/1/1953	28	292.60	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1953	1	16.94	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1965	76	2,018.17	10101	364	APPURTENANCE	FATOCPRS
7/1/1965	1	150.74	10101	364	PLATFORM,TRANSFORMER	FATOCPRS
7/1/1965	17	432.12	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1965	5	375.35	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1965	13	433.03	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1965	152	8,372.41	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1965	10	600.85	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1970	96	3,688.79	10101	364	APPURTENANCE	FATOCPRS
7/1/1970	6	298.17	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS
7/1/1970	17	446.02	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1970	2	165.12	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1970	8	267.09	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1970	67	4,464.51	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1970	2	200.76	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1971	16	1,262.77	10101	364	APPURTENANCE	FATOCPRS
7/1/1971	3	94.87	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1971	1	49.21	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1971	4	284.20	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1972	37	2,115.14	10101	364	APPURTENANCE	FATOCPRS
7/1/1972	5	282.84	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS
7/1/1972	1	23.71	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1972	3	94.47	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1972	3	493.38	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	FATOCPRS
7/1/1972	6	276.86	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1972	2	171.92	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1973	16	2,313.81	10101	364	APPURTENANCE	FATOCPRS
7/1/1973	1	148.67	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	FATOCPRS
7/1/1973	15	921.79	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1973	3	427.77	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1974	30	2,537.97	10101	364	APPURTENANCE	FATOCPRS
7/1/1974	3	162.70	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1974	4	945.59	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	FATOCPRS

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7/1/1974	14	2,525.10	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1974	5	906.54	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1975	23	1,176.11	10101	364	APPURTENANCE	FATOCPRS
7/1/1975	1	32.79	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1975	-	0.01	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1975	2	142.10	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1975	11	1,594.89	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1975	1	193.69	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1976	12	1,485.66	10101	364	APPURTENANCE	FATOCPRS
7/1/1976	1	123.70	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS
7/1/1976	1	56.70	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1976	1	220.13	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1976	8	1,208.23	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1976	2	476.90	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1977	47	7,572.42	10101	364	APPURTENANCE	FATOCPRS
7/1/1977	3	401.25	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS
7/1/1977	1	51.24	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1977	-	0.01	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1977	3	193.61	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1977	7	875.13	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1977	20	3,040.65	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1977	3	553.60	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	FATOCPRS
7/1/1978	21	959.33	10101	364	APPURTENANCE	FATOCPRS
7/1/1978	1	130.54	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS
7/1/1978	2	103.08	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1978	1	104.27	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1978	12	1,415.99	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1978	5	1,134.62	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1979	13	2,657.29	10101	364	APPURTENANCE	FATOCPRS
7/1/1979	1	115.44	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1979	8	1,125.60	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1979	7	1,629.68	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1980	40	3,442.30	10101	364	APPURTENANCE	FATOCPRS
7/1/1980	1	158.64	10101	364	POLE, WOOD 25 FOOT FULLY OWNED	FATOCPRS

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7/1/1980	4	1,014.36	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1980	6	1,319.50	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	FATOCPRS
7/1/1980	3	214.32	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1980	18	3,097.39	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1980	1	184.00	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	FATOCPRS
7/1/1980	2	474.00	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	FATOCPRS
7/1/1981	7	963.30	10101	364	APPURTENANCE	FATOCPRS
7/1/1981	1	269.10	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1981	3	417.28	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1981	2	348.26	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1981	3	763.42	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1982	37	5,105.13	10101	364	APPURTENANCE	FATOCPRS
7/1/1982	1	291.99	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1982	12	1,475.33	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1982	14	2,110.12	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1982	9	2,218.91	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1983	10	1,856.75	10101	364	APPURTENANCE	FATOCPRS
7/1/1983	2	369.84	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1983	1	133.06	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1983	3	622.89	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1983	3	800.23	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	FATOCPRS
7/1/1984	22	3,583.77	10101	364	APPURTENANCE	FATOCPRS
7/1/1984	-	0.01	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1984	4	559.26	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1984	3	457.62	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1984	13	3,305.39	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1984	1	334.54	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	FATOCPRS
7/1/1985	28	7,486.55	10101	364	APPURTENANCE	FATOCPRS
7/1/1985	1	87.15	10101	364	POLE, WOOD 25 FOOT JOINTLY OWNED	FATOCPRS
7/1/1985	2	595.60	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	FATOCPRS
7/1/1985	5	743.85	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1985	7	1,274.24	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1985	14	3,892.52	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1985	1	423.29	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	FATOCPRS

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7/1/1986	19	5,005.64	10101	364	APPURTENANCE		FATOCPRS
7/1/1986	1	293.18	10101	364	POLE, WOOD	30 FOOT FULLY OWNED	FATOCPRS
7/1/1986	1	114.18	10101	364	POLE, WOOD	30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1986	1	144.99	10101	364	POLE, WOOD	35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1986	10	2,980.04	10101	364	POLE, WOOD	40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1986	(1)	(654.87)	10101	364	POLE, WOOD	45 FOOT FULLY OWNED	FATOCPRS
7/1/1986	1	374.85	10101	364	POLE, WOOD	45 FOOT JOINTLY OWNED	FATOCPRS
7/1/1987	48	13,033.34	10101	364	APPURTENANCE		FATOCPRS
7/1/1987	2	145.60	10101	364	POLE, WOOD	30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1987	(1)	317.72	10101	364	POLE, WOOD	35 FOOT FULLY OWNED	FATOCPRS
7/1/1987	17	1,448.53	10101	364	POLE, WOOD	35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1987	(5)	(2,199.92)	10101	364	POLE, WOOD	40 FOOT FULLY OWNED	FATOCPRS
7/1/1987	22	4,413.85	10101	364	POLE, WOOD	40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1987	2	498.78	10101	364	POLE, WOOD	45 FOOT JOINTLY OWNED	FATOCPRS
1/1/1988	8	(82.41)	10101	364	POLE, WOOD	35 FOOT JOINTLY OWNED	N88032
1/1/1988	11	614.63	10101	364	POLE, WOOD	40 FOOT JOINTLY OWNED	N88032
1/1/1988	6	(323.29)	10101	364	POLE, WOOD	45 FOOT JOINTLY OWNED	N88032
7/1/1988	24	999.42	10101	364	APPURTENANCE		FATOCPRS
7/1/1988	(7)	(1,382.63)	10101	364	POLE, WOOD	40 FOOT FULLY OWNED	PS000385
7/1/1988	(2)	(475.90)	10101	364	POLE, WOOD	45 FOOT FULLY OWNED	PS000385
7/1/1989	65	17,448.05	10101	364	APPURTENANCE		N89040
7/1/1989	1	188.97	10101	364	POLE, WOOD	25 FOOT FULLY OWNED	N89040
7/1/1989	1	323.68	10101	364	POLE, WOOD	30 FOOT FULLY OWNED	N89040
7/1/1989	1	323.69	10101	364	POLE, WOOD	30 FOOT JOINTLY OWNED	N89040
7/1/1989	1	45.10	10101	364	POLE, WOOD	35 FOOT FULLY OWNED	N89040
7/1/1989	9	1,904.90	10101	364	POLE, WOOD	35 FOOT JOINTLY OWNED	N89040
7/1/1989	11	6,001.33	10101	364	POLE, WOOD	40 FOOT FULLY OWNED	N89040
7/1/1989	12	2,408.99	10101	364	POLE, WOOD	40 FOOT JOINTLY OWNED	N89040
7/1/1989	8	2,845.66	10101	364	POLE, WOOD	45 FOOT JOINTLY OWNED	N89040
1/1/1990	-	(3,700.00)	10101	364	APPURTENANCE		N7003290
1/1/1990	1	214.00	10101	364	POLE, WOOD	30 FOOT JOINTLY OWNED	N7004390
1/1/1990	-	(12,901.00)	10101	364	POLE, WOOD	40 FOOT FULLY OWNED	N7003290
7/1/1990	38	15,299.34	10101	364	APPURTENANCE		FATOCPRS
7/1/1990	1	126.21	10101	364	POLE, WOOD	30 FOOT FULLY OWNED	FATOCPRS

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7/1/1990	6	1,113.98	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	FATOCPRS
7/1/1990	9	329.41	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	FATOCPRS
7/1/1990	8	2,214.59	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	FATOCPRS
7/1/1990	12	3,321.87	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	FATOCPRS
7/1/1990	3	388.44	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	FATOCPRS
1/1/1991	-	(774.00)	10101	364	APPURTENANCE	N7003291
7/1/1991	22	11,108.18	10101	364	APPURTENANCE	N7004091
7/1/1991	2	765.95	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	N7004091
7/1/1991	11	4,563.05	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	N7004091
7/1/1991	10	6,455.08	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	N7004091
7/1/1991	1	164.15	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	N7004091
1/1/1992	27	16,675.90	10101	364	APPURTENANCE	N7004092
1/1/1992	4	(1,575.00)	10101	364	APPURTENANCE	N7003292
1/1/1992	2	531.09	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	N7004092
1/1/1992	8	3,534.85	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	N7004092
1/1/1992	6	2,651.14	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	N7004092
1/1/1992	3	1,864.80	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	N7004092
1/1/1992	9	5,594.41	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	N7004092
1/1/1992	3	937.50	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	N7003292
1/1/1993	-	(561.06)	10101	364	APPURTENANCE	7003293
1/1/1993	46	35,624.91	10101	364	APPURTENANCE	7004093
1/1/1993	1	8,944.66	10101	364	PLATFORM,TRANSFORMER	7004093
1/1/1993	4	235.95	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	7004093
1/1/1993	4	1,743.82	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	7004093
1/1/1993	1	435.95	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	7004093
1/1/1993	4	842.23	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	7004093
1/1/1993	18	8,823.30	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	7004093
1/1/1993	8	4,955.60	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	7004093
1/1/1993	2	1,238.90	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	7004093
1/1/1993	1	931.06	10101	364	POLE, WOOD 55 FOOT JOINTLY OWNED	7004093
1/1/1993	1	931.06	10101	364	POLE, WOOD 55 FOOT FULLY OWNED	7004093
1/1/1994	24	3,208.64	10101	364	APPURTENANCE	EPPOH94M
1/1/1994	1	23.55	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	EPPOH94M
1/1/1994	1	23.55	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	EPPOH94M

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1/1/1994	1	(121.74)	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	EPPOH94M
1/1/1994	7	(852.21)	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	EPPOH94M
1/1/1994	11	(489.01)	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	EPPOH94M
1/1/1994	3	(133.36)	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	EPPOH94M
1/1/1994	1	250.17	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	EPPOH94M
1/1/1994	1	250.17	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	EPPOH94M
1/1/1995	27	15,842.90	10101	364	APPURTENANCE	DN9E5001
1/1/1995	1	247.72	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E5001
1/1/1995	3	743.16	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	DN9E5001
1/1/1995	1	241.64	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E5001
1/1/1995	7	2,216.49	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E5001
1/1/1995	8	4,109.94	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	DN9E5001
1/1/1995	4	3,428.57	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E5001
1/1/1995	7	6,000.00	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E5001
1/1/1996	95	39,646.57	10101	364	APPURTENANCE	DN9E6001
1/1/1996	1	147.04	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E6001
1/1/1996	4	588.14	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	DN9E6001
1/1/1996	1	202.31	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E6001
1/1/1996	5	1,011.56	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E6001
1/1/1996	17	8,890.91	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	DN9E6001
1/1/1996	20	10,459.89	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	DN9E6001
1/1/1996	17	10,705.36	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E6001
1/1/1996	18	11,335.08	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E6001
1/1/1996	2	1,021.43	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	DN9E6001
1/1/1996	4	4,120.28	10101	364	POLE, WOOD 55 FOOT FULLY OWNED	DN9E6001
1/1/1996	2	2,455.54	10101	364	POLE, WOOD 60 FOOT FULLY OWNED	DN9E6001
1/1/1996	1	1,227.77	10101	364	POLE, WOOD 60 FOOT JOINTLY OWNED	DN9E6001
1/1/1997	46	20,028.70	10101	364	APPURTENANCE	DN9E7001
1/1/1997	1	91.03	10101	364	APPURTENANCE	EPPHIT95
1/1/1997	4	1,295.30	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E7001
1/1/1997	2	647.65	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E7001
1/1/1997	7	2,419.44	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	DN9E7001
1/1/1997	18	6,223.70	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	DN9E7001
1/1/1997	1	300.00	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	EPPHIT95

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1/1/1997	4	2,003.12	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E7001
1/1/1997	7	3,505.45	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E7001
1/1/1997	2	963.78	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	DN9E7001
1/1/1998	66	24,621.52	10101	364	APPURTENANCE	DN9E8001
1/1/1998	4	1,460.58	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E8001
1/1/1998	1	365.14	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	DN9E8001
1/1/1998	5	1,603.49	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E8001
1/1/1998	6	1,924.18	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E8001
1/1/1998	5	3,446.44	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	TL77Q702
1/1/1998	3	1,445.54	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	DN9E8001
1/1/1998	33	15,900.94	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	DN9E8001
1/1/1998	5	3,429.13	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E8001
1/1/1998	7	4,800.77	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E8001
1/1/1998	1	1,028.73	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	DN9E8001
1/1/1999	42	19,691.07	10101	364	APPURTENANCE	DN9E9001
1/1/1999	1	192.18	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E9001
1/1/1999	8	1,537.45	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	DN9E9001
1/1/1999	2	1,045.46	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E9001
1/1/1999	23	11,999.40	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	DN9E9001
1/1/1999	3	2,224.70	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E9001
1/1/1999	4	2,966.27	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E9001
1/1/1999	1	1,042.48	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	DN9E9001
1/1/2000	53	17,966.69	10101	364	APPURTENANCE	DN9R0N01
1/1/2000	1	259.21	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E0N01
1/1/2000	1	259.21	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	DN9E0N01
1/1/2000	4	1,224.70	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	DN9E0N01
1/1/2000	4	1,416.71	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E0N01
1/1/2000	27	12,016.20	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	DN9R0N01
1/1/2000	1	577.66	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9R0N01
1/1/2000	12	6,931.91	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9R0N01
1/1/2000	1	547.70	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	DN9E0N01
1/1/2001	58	19,943.18	10101	364	APPURTENANCE	DN9E1N01
1/1/2001	2	2,797.37	10101	364	APPURTENANCE	C01TEL01
1/1/2001	1	412.94	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	DN9E1N01

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1/1/2001	6	1,023.00	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	DN9E1N01
1/1/2001	31	22,039.78	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	DN9E1N01
1/1/2001	2	3,640.52	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	C01TEL01
1/1/2001	5	3,122.44	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	DN9E1N01
1/1/2001	12	7,493.87	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	DN9E1N01
1/1/2001	4	3,753.23	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	DN9E1N01
1/1/2002	27	26,228.27	10101	364	APPURTENANCE	C01AMN09
1/1/2002	1	165.69	10101	364	APPURTENANCE	9E210376
1/1/2002	8	1,535.83	10101	364	APPURTENANCE	9E210418
1/1/2002	1	243.32	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E210376
1/1/2002	1	408.38	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E211148
1/1/2002	1	1,033.76	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	9E210418
1/1/2002	14	28,012.93	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	C01AMN09
1/1/2002	4	313.58	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E210957
1/1/2002	7	17,308.24	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	C01AMN09
1/1/2002	1	784.93	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E210418
1/1/2002	1	3,001.97	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	C01AMN09
1/1/2002	3	10,330.70	10101	364	POLE, WOOD 55 FOOT FULLY OWNED	C01AMN09
1/1/2002	3	14,015.17	10101	364	POLE, WOOD 60 FOOT FULLY OWNED	C01AMN09
1/1/2003	13	3,966.87	10101	364	APPURTENANCE	9E360547
1/1/2003	-	(300.00)	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	EPPHIT01
1/1/2003	-	(1,800.00)	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	EPPHIT01
1/1/2003	5	2,037.97	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E360547
1/1/2003	-	(3,300.00)	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	EPPHIT01
1/1/2003	2	2,257.81	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E210205
1/1/2003	-	(5,482.00)	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	EPPHIT01
1/1/2003	6	3,318.43	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	EPPHIT01
1/1/2003	-	(2,592.00)	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	EPPHIT02
1/1/2004	12	3,939.95	10101	364	APPURTENANCE	9E460004
1/1/2004	4	2,347.20	10101	364	APPURTENANCE	9E360983
1/1/2004	7	1,910.87	10101	364	APPURTENANCE	9E460758
1/1/2004	1	331.65	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E360983
1/1/2004	1	84.50	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	9E460109
1/1/2004	1	635.69	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E461303

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1/1/2004	2	411.67	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E460470
1/1/2004	2	875.78	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E460758
1/1/2004	5	2,679.99	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E460004
1/1/2004	2	1,027.40	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E360941
1/1/2004	2	1,917.69	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E461304
1/1/2004	4	3,388.53	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E460004
1/1/2004	2	377.65	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	9E210038
1/1/2005	11	10,102.83	10101	364	APPURTENANCE	9E461340
1/1/2005	1	2,284.22	10101	364	APPURTENANCE	9E560774
1/1/2005	13	11,117.32	10101	364	APPURTENANCE	9E560039
1/1/2005	1	685.44	10101	364	APPURTENANCE	9E560696
1/1/2005	1	255.25	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	9E560516
1/1/2005	2	1,462.71	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E461340
1/1/2005	(1)	302.88	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E561078
1/1/2005	1	(85.75)	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	EPPHIT04
1/1/2005	2	1,279.23	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E560774
1/1/2005	1	201.60	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E560039
1/1/2005	2	4,784.98	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E561475
1/1/2005	1	1,924.77	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E560696
1/1/2005	7	5,918.88	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E461340
1/1/2005	(1)	(444.33)	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E560169
1/1/2005	10	11,916.68	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E361620
1/1/2006	11	8,907.47	10101	364	APPURTENANCE	A04N2201
1/1/2006	3	721.07	10101	364	APPURTENANCE	9E660160
1/1/2006	1	737.80	10101	364	APPURTENANCE	9E613170
1/1/2006	18	10,474.91	10101	364	APPURTENANCE	9E561731
1/1/2006	5	1,793.06	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E561731
1/1/2006	1	989.48	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	9E660160
1/1/2006	13	13,051.17	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E561731
1/1/2006	2	2,121.64	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E613252
1/1/2006	5	4,600.65	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	A04N2201
1/1/2006	1	1,316.95	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E613170
1/1/2006	2	1,124.54	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E613525
1/1/2006	3	3,231.67	10101	364	POLE, WOOD 50 FOOT FULLY OWNED	A04N2201

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1/1/2006	2	2,401.19	10101	364	POLE, WOOD 55 FOOT FULLY OWNED	A04N2201
1/1/2006	1	3,712.89	10101	364	POLE, WOOD 70 FOOT FULLY OWNED	A04N2201
1/1/2007	3	2,829.40	10101	364	APPURTENANCE	9E710097
1/1/2007	44	29,010.78	10101	364	APPURTENANCE	9E710427
1/1/2007	1	178.28	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E710427
1/1/2007	1	622.09	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E613791
1/1/2007	4	3,377.66	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E710437
1/1/2007	6	7,082.51	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E613723
1/1/2007	1	589.16	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E710149
1/1/2007	2	2,515.82	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	9E613723
1/1/2007	3	3,478.40	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E710029
1/1/2007	1	1,854.68	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E710097
1/1/2007	3	4,079.84	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E613723
1/1/2007	10	41,755.98	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E613434
1/1/2007	14	30,256.18	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	9E613723
1/1/2007	1	4,163.78	10101	364	POLE, WOOD 55 FOOT JOINTLY OWNED	9E613723
1/1/2008	4	5,716.16	10101	364	APPURTENANCE	STRM8001
1/1/2008	12	3,950.33	10101	364	APPURTENANCE	9E810046
1/1/2008	3	1,233.32	10101	364	APPURTENANCE	9E810067
1/1/2008	1	708.39	10101	364	APPURTENANCE	9E810229
1/1/2008	1	919.48	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E810493
1/1/2008	1	306.47	10101	364	POLE, WOOD 30 FOOT FULLY OWNED	9E810356
1/1/2008	2	698.81	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	9E810493
1/1/2008	1	742.28	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E613102
1/1/2008	1	1,843.21	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	STRM8001
1/1/2008	2	316.35	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E810374
1/1/2008	3	6,687.63	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	STRM8001
1/1/2008	4	2,821.70	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E810220
1/1/2008	1	1,371.73	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E810115
1/1/2008	1	608.91	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E810912
1/1/2008	-	(300.00)	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	EPPHIT08
1/1/2008	1	3,467.69	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	9E810067
1/1/2009	6	4,728.67	10101	364	APPURTENANCE	9E810879
1/1/2009	7	3,198.31	10101	364	APPURTENANCE	9E613035

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1/1/2009	1	440.23	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E910147
1/1/2009	1	2,030.20	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	9E910580
1/1/2009	2	2,287.90	10101	364	POLE, WOOD 40 FOOT FULLY OWNED	9E810828
1/1/2009	3	2,793.16	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	EPPHIT09
1/1/2009	1	1,710.48	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E810879
1/1/2009	1	383.20	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E910227
1/1/2009	1	1,403.31	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	EPPHIT09
1/1/2009	2	734.60	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E613035
1/1/2009	1	700.72	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	9E613035
1/1/2010	9	3,992.78	10101	364	APPURTENANCE	9E910566
1/1/2010	7	3,084.05	10101	364	APPURTENANCE	9E910581
1/1/2010	3	1,084.54	10101	364	APPURTENANCE	STRM1001
1/1/2010	1	492.99	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E020203
1/1/2010	4	3,032.85	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E020229
1/1/2010	3	5,887.57	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	STRM1001
1/1/2010	2	2,508.68	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E910566
1/1/2010	5	7,837.50	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E910581
1/1/2010	1	678.27	10101	364	POLE, WOOD 45 FOOT FULLY OWNED	9E020573
1/1/2010	2	298.49	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	EPPHIT10
1/1/2010	1	2,516.51	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E020114
1/1/2011	17	9,455.26	10101	364	APPURTENANCE	9E120110
1/1/2011	2	795.94	10101	364	APPURTENANCE	9E120371
1/1/2011	2	2,389.02	10101	364	POLE, WOOD 30 FOOT JOINTLY OWNED	ST6D1008
1/1/2011	2	1,728.24	10101	364	POLE, WOOD 35 FOOT FULLY OWNED	9E020476
1/1/2011	2	1,948.80	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	ST6D1008
1/1/2011	1	1,421.48	10101	364	POLE, WOOD 35 FOOT JOINTLY OWNED	9E120371
1/1/2011	7	8,097.38	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	ST6D1008
1/1/2011	1	1,281.36	10101	364	POLE, WOOD 40 FOOT JOINTLY OWNED	9E120371
1/1/2011	3	3,128.38	10101	364	POLE, WOOD 45 FOOT JOINTLY OWNED	9E120110
1/1/2011	1	2,335.67	10101	364	POLE, WOOD 50 FOOT JOINTLY OWNED	ST6D1008
7/1/1942	(6)	(151.24)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
4/1/1946	(2)	(354.58)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120369
3/1/1954	(2)	(354.58)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E220125
4/1/1961	(2)	(81.63)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120391

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4/1/1965	(2)	(81.63)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120369
7/1/1965	(45)	(1,366.97)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
3/1/1966	(2)	(86.64)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120137
3/1/1966	(1)	(55.08)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120370
7/1/1970	(20)	(1,059.85)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1971	(1)	(55.31)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
3/1/1975	(2)	(83.93)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E220125
7/1/1975	(1)	(91.07)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1978	(5)	(600.55)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1979	(10)	(1,438.31)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1981	(4)	(623.98)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1983	(6)	(989.34)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1984	(4)	(759.91)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1987	(2)	(497.98)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1988	(2)	(585.14)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1990	(2)	(878.60)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
7/1/1991	(1)	(324.42)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
3/1/1995	(2)	(1,076.95)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120661
11/1/2001	109	9,422.67	106999	364	NON-UNITIZED RETIRE (For System Use Only)	71470
4/1/2007	(2)	(4,853.05)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E220197
1/1/2008	(1)	(1,360.13)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	9E120482
1/1/2011	(1)	(349.09)	106999	364	NON-UNITIZED RETIRE (For System Use Only)	EPPHIT11
		$ 1,134,605.21	Account Total 364			
1/6/1953	-	16,770.12	10101	365	Conductor Group 1 Overhead Primary Cable < 1/0	ET3377X4
7/1/1953	11	148.70	10101	365	Arrester Group 1 - Generic Arrester Unit	FATOCPRS
7/1/1953	73,177	3,159.90	10101	365	Conductor Group 1 Overhead Primary Cable < 1/0	FATOCPRS
7/1/1953	35	37.33	10101	365	Cutout Group 1 Generic Cutout (All AMP Sizes)	FATOCPRS
1/6/1965	-	24,981.87	10101	365	Conductor Group 1 Overhead Primary Cable < 1/0	ET3377X4
1/6/1965	-	22,461.54	10101	365	Conductor Group 2 Overhead Primary Cable 1/0 - 336	ET3377X4
7/1/1965	25	824.10	10101	365	Arrester Group 1 - Generic Arrester Unit	FATOCPRS
7/1/1965	109,747	11,989.82	10101	365	Conductor Group 1 Overhead Primary Cable < 1/0	FATOCPRS
7/1/1965	158	149.67	10101	365	Conductor Group 1 Overhead Primary Cable < 1/0	FATOCPRS

NEW HAMPSHIRE ELECTRIC COOPERATIVE, INC.
UNIT COST ESTIMATES BY YEAR (2011 & 2012)
DERIVED FROM RSMEANS COST WORKBOOKS AND CRAFTSMAN HEAVY CONSTRUCTION ESTIMATOR

	A	B	C	D	E	F	G	H	I	J
Row	Property Description				2011 Cost Reference	2012 Cost Reference	2011 Cost Installed	2012 Cost Installed	2011 Estimated Calculations	2012 Estimated Calculations
1	Crossarms & Post Insulators				3371 16.20 0320 - Material Only Plus Estimated 3371 23.16 7400 x 2	3371 16.20 0320 - Material Only Plus Estimated 3371 23.16 7400 x 2	$ 577.00	$ 564.00	$490 Plus ($43.50 x 2 = $87) = $577	$475 Plus ($44.50 x 2 = $89) = $564
2	Line Poles and Fixtures	Digging holes in earth, average			3371 16.20 0100	3371 16.20 0100	$ 285.00	$ 295.00		
3	Line Poles and Fixtures	Digging holes in rock, average			Estimated 3371 16.20 0105	Estimated 3371 16.20 0105	$ 79.00	$ 83.00	$1,575 x 5% = $78.75 or $79 Rounded	$1,650 x 5% = $82.5 or $83 Rounded
4	Line Poles and Fixtures	Wood poles, material handling and spotting			3371 16.20 0200	3371 16.20 0200	$ 425.00	$ 440.00		
5	Line Poles and Fixtures	Erect wood poles & backfill holes, in earth			Estimated 3371 16.20 0220	Estimated 3371 16.20 0220	$ 1,200.00	$ 1,250.00	$2,675 Total Including O&P Less $1,475 Material = $1,200	$2,700 Total Including O&P Less $1,450 Material = $1,250
6	Line Poles and Fixtures	Erect wood poles & backfill holes, in rock			Estimated 3371 16.20 0250	Estimated 3371 16.20 0250	$ 70.00	$ 72.00	$2,850 Total Including O&P Less $1,475 Material = $1,375 or $1,400 Rounded x 5% = $70	$2,875 Total Including O&P Less $1,450 Material = $1,425 x 5% = $72
7	Line Poles and Fixtures	Disposal of pole & hardware surplus material			Estimated 3371 16.20 0260	Estimated 3371 16.20 0260	$ 4.50	$ 4.70	$133 cost/mile ÷ 5,280 ft/mile x 180 ft/pole = $4.53 (Rounded $4.50)	$138 cost/mile ÷ 5,280 ft/mile x 180 ft/pole = $4.70
8	Estimated Cost to Install Used in addition to the cost per pole 20' through 45'						$ 2,063.50	$ 2,144.70	Sum of Column G Rows 2-7	Sum of Column H Rows 2-7
9	Estimated Cost to Install Used in addition to the cost per pole 50'						$ 3,000.00	$ 3,000.00		
10	Estimated Cost to Install Used in addition to the cost per pole 55'						$ 3,500.00	$ 3,500.00		
11	Estimated Cost to Install Used in addition to the cost per pole 60'						$ 4,000.00	$ 4,000.00		
12	Pole		20'		3371 16.33 6200 - Material Only	3371 16.33 6200 - Material Only	$ 243.00	$ 267.00		
13	Pole		25'		3371 16.33 6400 - Material Only	3371 16.33 6400 - Material Only	$ 297.00	$ 325.00		
14	Pole		30'		3371 16.33 6600 - Material Only	3371 16.33 6600 - Material Only	$ 385.00	$ 425.00		
15	Pole		35'		3371 16.33 6800 - Material Only	3371 16.33 6800 - Material Only	$ 475.00	$ 525.00		
16	Pole		40'		3371 16.33 7000 - Material Only	3371 16.33 7000 - Material Only	$ 685.00	$ 745.00		
17	Pole		45'		3371 16.33 7200 - Material Only	3371 16.33 7200 - Material Only	$ 825.00	$ 890.00		
18	Pole		50'		Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 50'	Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 50'	$ 1,377.00	$ 1,475.00		
19	Pole		55'		Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 55'	Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 55'	$ 1,535.00	$ 1,634.00		
20	Pole		60'		Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 60'	Craftsman 16-413 Pole Line Construction Power Poles, class 3 yellow pine 60'	$ 1,756.00	$ 1,870.00		
21	Pole				Total Value for a 20' Pole	20'	$ 2,306.50	$ 2,411.70	Column G (Line 8 plus Line 12)	Column H (Line 8 plus Line 12)
22	Pole				Total Value for a 25' Pole	25'	$ 2,360.50	$ 2,469.70	Column G (Line 8 plus Line 13)	Column H (Line 8 plus Line 13)
23	Pole				Total Value for a 30' Pole	30'	$ 2,448.50	$ 2,569.70	Column G (Line 8 plus Line 14)	Column H (Line 8 plus Line 14)
24	Pole				Total Value for a 35' Pole	35'	$ 2,538.50	$ 2,669.70	Column G (Line 8 plus Line 15)	Column H (Line 8 plus Line 15)
25	Pole				Total Value for a 40' Pole	40'	$ 2,748.50	$ 2,889.70	Column G (Line 8 plus Line 16)	Column H (Line 8 plus Line 16)
26	Pole				Total Value for a 45' Pole	45'	$ 2,888.50	$ 3,034.70	Column G (Line 8 plus Line 17)	Column H (Line 8 plus Line 17)
27	Pole				Total Value for a 50' Pole	50'	$ 4,377.00	$ 4,475.00	Column G(Line 9 plus Line 18)	Column H (Line 9 plus Line 18)
28	Pole				Total Value for a 55' Pole	55'	$ 5,035.00	$ 5,134.00	Column G (Line 10 plus Line 19)	Column H (Line 10 plus Line 19)
29	Pole				Total Value for a 60' Pole	60'	$ 5,756.00	$ 5,870.00	Column G (Line 11 plus Line 20)	Column H (Line 11 plus Line 20)

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The 2012 Electrical Cost Data, 35th Annual Edition, and all of the RSMeans annual cost data books are dedicated to the memory of our respected friend and colleague, Hsiao Cheng (John) Chiang, PE.

RSMeans Electrical Cost Data

35TH ANNUAL EDITION

2012

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33 71 13 – Electrical Utility Towers

33 71 13.23 Line Towers and Fixtures	Crew	Daily Output	Labor-Hours	Unit	2012 Bare Costs Material	Labor	Equipment	Total	Total Incl O&P
0560 Painting total structure	R-5	1.47	59.864	Ea.	385	2,700	905	3,990	5,475
0570 Disposal of surplus material	R-7	20.87	2.300	Mile		84	8.75	92.75	138
0600 Special towers-material handling and spotting	"	12.31	3.899	Ton		142	14.80	156.80	233
0640 Special steel structure erection	R-6	6.52	13.497		2,500	605	485	3,590	4,200
0650 Special steel lace and box	"	6.29	13.990		2,500	630	505	3,635	4,250
0670 Disposal of surplus material	R-7	7.87	6.099	Mile		222	23	245	365
33 71 13.80 Transmission Line Right of Way									
0010 **TRANSMISSION LINE RIGHT OF WAY**									
0100 Clearing right of way	B-87	6.67	5.997	Acre		265	370	635	805
0200 Restoration & seeding	B-10D	4	3	"	720	128	415	1,263	1,450

33 71 16 – Electrical Utility Poles

33 71 16.20 Line Poles and Fixtures	Crew	Daily Output	Labor-Hours	Unit	Material	Labor	Equipment	Total	Total Incl O&P
0010 **LINE POLES & FIXTURES** R337116-60									
0100 Digging holes in earth, average	R-5	25.14	3.500	Ea.		157	53	210	295
0105 In rock, average	"	4.51	19.512			875	295	1,170	1,650
0200 Wood poles, material handling and spotting	R-7	6.49	7.396			269	28	297	440
0220 Erect wood poles & backfill holes, in earth	R-5	6.77	12.999		1,450	585	197	2,232	2,700
0250 In rock	"	5.87	14.991		1,450	675	227	2,352	2,875
0260 Disposal of pole & hardware surplus material	R-7	20.87	2.300	Mile		84	8.75	92.75	138
0300 Crossarms for wood pole structure									
0310 Material handling and spotting	R-7	14.55	3.299	Ea.		120	12.55	132.55	198
0320 Install crossarms	R-5	11	8	"	475	360	121	956	1,200
0330 Disposal of crossarms & hardware surplus material	R-7	40	1.200	Mile		43.50	4.56	48.06	72
0400 Formed plate pole structure									
0410 Material handling and spotting	R-7	2.40	20	Ea.		730	76	806	1,200
0420 Erect steel plate pole	R-5	1.95	45.128		8,950	2,025	680	11,655	13,700
0500 Guys, anchors and hardware for pole, in earth		7.04	12.500		540	560	189	1,289	1,650
0510 In rock		17.96	4.900		650	220	74	944	1,125
0900 Foundations for line poles									
0920 Excavation, in earth	R-5	135.38	.650	C.Y.		29	9.85	38.85	55
0940 In rock		20	4.400			198	66.50	264.50	370
0960 Concrete foundations		11	8		133	360	121	614	820
33 71 16.33 Wood Electrical Utility Poles									
0010 **WOOD ELECTRICAL UTILITY POLES**									
0011 Excludes excavation, backfill and cast-in-place concrete									
6200 Electric & tel sitework, 20' high, treated wd., see Section 26 56 13.10	R-3	3.10	6.452	Ea.	267	330	42.50	639.50	835
6400 25' high R337119-30		2.90	6.897		325	350	45.50	720.50	935
6600 30' high		2.60	7.692		425	390	51	866	1,100
6800 35' high		2.40	8.333		525	425	55	1,005	1,275
7000 40' high		2.30	8.696		745	445	57.50	1,247.50	1,550
7200 45' high		1.70	11.765		890	600	78	1,568	1,975
7400 Cross arms with hardware & insulators									
7600 4' long	1 Elec	2.50	3.200	Ea.	143	165		308	405
7800 5' long		2.40	3.333		166	172		338	440
8000 6' long		2.20	3.636		190	187		377	490

33 71 19 – Electrical Underground Ducts and Manholes

33 71 19.15 Underground Ducts and Manholes	Crew	Daily Output	Labor-Hours	Unit	Material	Labor	Equipment	Total	Total Incl O&P
0010 **UNDERGROUND DUCTS AND MANHOLES**									
0011 Not incl. excavation, backfill and concrete, in slab or duct bank									
1000 Direct burial									
1010 PVC, schedule 40, w/coupling, 1/2" diameter	1 Elec	340	.024	L.F.	.57	1.21		1.78	2.44

Brentwood, New Hampshire

Value of
New Hampshire Electric Cooperative Electrical Distribution Property

As of April 1, 2012

	A	B	C				D	E	F	G	H	I	J	K
Row	Township	Owner	Description				Units	Quantity	Unit Cost	RCN	Age	Life	Depr to the Good	RCNLD
1	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	35		Ea	1	$564.00	$564	40	60	33.33%	$188.00
2	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	35		Ea	1	$564.00	$564	71	60	20.00%	$113.00
3	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	40		Ea	1	$564.00	$564	19	60	68.33%	$385.00
4	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	30		Ea	1	$564.00	$564	8	60	86.67%	$489.00
5	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	30		Ea	1	$564.00	$564	31	60	48.33%	$273.00
6	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	35		Ea	1	$564.00	$564	22	60	63.33%	$357.00
7	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	35		Ea	1	$564.00	$564	23	60	61.67%	$348.00
8	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	35		Ea	1	$564.00	$564	40	60	33.33%	$188.00
9	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	40		Ea	1	$564.00	$564	8	60	86.67%	$489.00
10	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	40		Ea	1	$564.00	$564	12	60	80.00%	$451.00
11	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	40		Ea	5	$564.00	$2,820	17	60	71.67%	$2,021.00
12	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	40		Ea	1	$564.00	$564	53	60	20.00%	$113.00
13	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	45		Ea	1	$564.00	$564	8	60	86.67%	$489.00
14	BRENTWOOD	Other	Pole - Attachments only	Crossarms - Insulators	45		Ea	2	$564.00	$1,128	10	60	83.33%	$940.00
15	BRENTWOOD	Phone	Pole - Attachments only	Crossarms - Insulators	40		Ea	16	$564.00	$9,024	5	60	91.67%	$8,272.00
16	BRENTWOOD	Tel	Pole - Attachments only	Crossarms - Insulators	30		Ea	1	$564.00	$564	42	60	30.00%	$169.00
17	BRENTWOOD	Tel	Pole - Attachments only	Crossarms - Insulators	40		Ea	1	$564.00	$564	17	60	71.67%	$404.00
18	BRENTWOOD	50%	Pole	35			FT	1	$2,669.70	$1,335	5	60	91.67%	$1,224.00
19	BRENTWOOD	NHEC	Pole	*20*			FT	2	$2,411.70	$4,823	5	60	91.67%	$4,421.00
20	BRENTWOOD	NHEC	Pole	*20*			FT	1	$2,411.70	$2,412	71	60	20.00%	$482.00
21	BRENTWOOD	NHEC	Pole	25			FT	1	$2,469.70	$2,470	5	60	91.67%	$2,264.00
22	BRENTWOOD	NHEC	Pole	25			FT	1	$2,469.70	$2,470	33	60	45.00%	$1,112.00
23	BRENTWOOD	NHEC	Pole	25			FT	1	$2,469.70	$2,470	35	60	41.67%	$1,029.00
24	BRENTWOOD	NHEC	Pole	25			FT	1	$2,469.70	$2,470	36	60	40.00%	$988.00
25	BRENTWOOD	NHEC	Pole	25			FT	4	$2,469.70	$9,879	40	60	33.33%	$3,293.00
26	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	7	60	88.33%	$2,270.00
27	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	8	60	86.67%	$2,227.00
28	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	10	60	83.33%	$2,142.00
29	BRENTWOOD	NHEC	Pole	30			FT	2	$2,569.70	$5,139	12	60	80.00%	$4,111.00
30	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	14	60	76.67%	$1,970.00
31	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	17	60	71.67%	$1,842.00

	A	B	C				D	E	F	G	H	I	J	K
Row	Township	Owner	Description				Units	Quantity	Unit Cost	RCN	Age	Life	Depr to the Good	RCNLD
32	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	19	60	68.33%	$1,756.00
33	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	20	60	66.67%	$1,713.00
34	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	23	60	61.67%	$1,585.00
35	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	24	60	60.00%	$1,542.00
36	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	27	60	55.00%	$1,414.00
37	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	28	60	53.33%	$1,371.00
38	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	31	60	48.33%	$1,242.00
39	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	34	60	43.33%	$1,114.00
40	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	35	60	41.67%	$1,071.00
41	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	40	60	33.33%	$857.00
42	BRENTWOOD	NHEC	Pole	30			FT	2	$2,569.70	$5,139	42	60	30.00%	$1,542.00
43	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	44	60	26.67%	$685.00
44	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	48	60	20.00%	$514.00
45	BRENTWOOD	NHEC	Pole	30			FT	1	$2,569.70	$2,570	50	60	20.00%	$514.00
46	BRENTWOOD	NHEC	Pole	35			FT	3	$2,669.70	$8,009	5	60	91.67%	$7,342.00
47	BRENTWOOD	NHEC	Pole	35			FT	1	$2,669.70	$2,670	17	60	71.67%	$1,914.00
48	BRENTWOOD	NHEC	Pole	35			FT	3	$2,669.70	$8,009	34	60	43.33%	$3,470.00
49	BRENTWOOD	NHEC	Pole	35			FT	2	$2,669.70	$5,339	35	60	41.67%	$2,225.00
50	BRENTWOOD	NHEC	Pole	35			FT	4	$2,669.70	$10,679	36	60	40.00%	$4,272.00
51	BRENTWOOD	NHEC	Pole	35			FT	1	$2,669.70	$2,670	37	60	38.33%	$1,023.00
52	BRENTWOOD	NHEC	Pole	35			FT	1	$2,669.70	$2,670	38	60	36.67%	$979.00
53	BRENTWOOD	NHEC	Pole	35			FT	16	$2,669.70	$42,715	40	60	33.33%	$14,237.00
54	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	5	60	91.67%	$2,649.00
55	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	6	60	90.00%	$2,601.00
56	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	8	60	86.67%	$2,505.00
57	BRENTWOOD	NHEC	Pole	40			FT	2	$2,889.70	$5,779	9	60	85.00%	$4,912.00
58	BRENTWOOD	NHEC	Pole	40			FT	7	$2,889.70	$20,228	10	60	83.33%	$16,856.00
59	BRENTWOOD	NHEC	Pole	40			FT	5	$2,889.70	$14,449	12	60	80.00%	$11,559.00
60	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	13	60	78.33%	$2,264.00
61	BRENTWOOD	NHEC	Pole	40			FT	8	$2,889.70	$23,118	14	60	76.67%	$17,725.00
62	BRENTWOOD	NHEC	Pole	40			FT	3	$2,889.70	$8,669	16	60	73.33%	$6,357.00
63	BRENTWOOD	NHEC	Pole	40			FT	7	$2,889.70	$20,228	19	60	68.33%	$13,822.00
64	BRENTWOOD	NHEC	Pole	40			FT	6	$2,889.70	$17,338	23	60	61.67%	$10,692.00
65	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	25	60	58.33%	$1,686.00
66	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	26	60	56.67%	$1,638.00
67	BRENTWOOD	NHEC	Pole	40			FT	2	$2,889.70	$5,779	32	60	46.67%	$2,697.00
68	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	33	60	45.00%	$1,301.00
69	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	35	60	41.67%	$1,204.00

	A	B	C				D	E	F	G	H	I	J	K
Row	Township	Owner	Description				Units	Quantity	Unit Cost	RCN	Age	Life	Depr to the Good	RCNLD
70	BRENTWOOD	NHEC	Pole	40			FT	3	$2,889.70	$8,669	38	60	36.67%	$3,179.00
71	BRENTWOOD	NHEC	Pole	40			FT	5	$2,889.70	$14,449	39	60	35.00%	$5,057.00
72	BRENTWOOD	NHEC	Pole	40			FT	9	$2,889.70	$26,007	40	60	33.33%	$8,668.00
73	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	41	60	31.67%	$915.00
74	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	42	60	30.00%	$867.00
75	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	44	60	26.67%	$771.00
76	BRENTWOOD	NHEC	Pole	40			FT	1	$2,889.70	$2,890	71	60	20.00%	$578.00
77	BRENTWOOD	NHEC	Pole	45			FT	2	$3,034.70	$6,069	8	60	86.67%	$5,260.00
78	BRENTWOOD	NHEC	Pole	45			FT	1	$3,034.70	$3,035	10	60	83.33%	$2,529.00
79	BRENTWOOD	NHEC	Pole	45			FT	3	$3,034.70	$9,104	14	60	76.67%	$6,980.00
80	BRENTWOOD	NHEC	Pole	45			FT	1	$3,034.70	$3,035	15	60	75.00%	$2,276.00
81	BRENTWOOD	NHEC	Pole	45			FT	5	$3,034.70	$15,174	16	60	73.33%	$11,127.00
82	BRENTWOOD	NHEC	Pole	45			FT	3	$3,034.70	$9,104	17	60	71.67%	$6,525.00
83	BRENTWOOD	NHEC	Pole	45			FT	3	$3,034.70	$9,104	18	60	70.00%	$6,373.00
84	BRENTWOOD	NHEC	Pole	45			FT	8	$3,034.70	$24,278	19	60	68.33%	$16,589.00
85	BRENTWOOD	NHEC	Pole	45			FT	2	$3,034.70	$6,069	21	60	65.00%	$3,945.00
86	BRENTWOOD	NHEC	Pole	45			FT	1	$3,034.70	$3,035	23	60	61.67%	$1,872.00
87	BRENTWOOD	NHEC	Pole	45			FT	1	$3,034.70	$3,035	40	60	33.33%	$1,012.00
88	BRENTWOOD	NHEC	Pole	45			FT	1	$3,034.70	$3,035	73	60	20.00%	$607.00
89	BRENTWOOD	NHEC	Pole Count NHEC Owned	Crossarms - Insulators			Ea	165	$564.00	$93,060			58.73%	$54,654.00
90	BRENTWOOD	NHEC	Overhead Conductors	1/0	ACSR		FT	29,151.61	$2.68	$78,126			58.73%	$45,883.00
91	BRENTWOOD	NHEC	Overhead Conductors	1/0	TREE		FT	14,908.87	$2.68	$39,956			58.73%	$23,466.00
92	BRENTWOOD	NHEC	Overhead Conductors	2	ACSR		FT	2,664.98	$2.68	$7,142			58.73%	$4,194.00
93	BRENTWOOD	NHEC	Overhead Conductors	Other			FT	78.54	$2.68	$210			58.73%	$123.00
94	BRENTWOOD	NHEC	Overhead Conductors	Under review			FT	27,767.61	$2.68	$74,417			58.73%	$43,705.00
95	BRENTWOOD	NHEC	Underground Conductors	1/0	URD15		FT	3,640.31	$74.50	$271,203			58.73%	$159,278.00
96	BRENTWOOD	NHEC	Underground Conductors	1/0	URD15R		FT	215.75	$74.50	$16,073			58.73%	$9,440.00
97	BRENTWOOD	NHEC	Underground Conductors	1/0	URD35		FT	7,041.65	$91.00	$640,790			58.73%	$376,336
98	BRENTWOOD	NHEC	Underground Conductors	350	URD15R		FT	111.33	$118.50	$13,193			58.73%	$7,748
99	BRENTWOOD	NHEC	Overhead Services	1/0	TPLX		FT	551.85	$3.44	$1,898			58.73%	$1,115
100	BRENTWOOD	NHEC	Overhead Services	2	TPLX		FT	1,411.45	$2.51	$3,543			58.73%	$2,081
101	BRENTWOOD	NHEC	Overhead Services	4/0-2/0	USE		FT	402.59	$5.41	$2,178			58.73%	$1,279
102	BRENTWOOD	NHEC	Overhead Services	Other			FT	27.95	$2.68	$75			58.73%	$44
103	BRENTWOOD	NHEC	Overhead Services	Under review			FT	9,491.79	$2.68	$25,438			58.73%	$14,940
104	BRENTWOOD	NHEC	Underground Services	2	USE		FT	182.12	$3.52	$641			58.73%	$376
105	BRENTWOOD	NHEC	Underground Services	2/0	USE		FT	973.80	$6.31	$6,145			58.73%	$3,609
106	BRENTWOOD	NHEC	Underground Services	4/0	USE		FT	2,212.71	$7.48	$16,551			58.73%	$9,720
107	BRENTWOOD	NHEC	Underground Services	4/0-2/0	USE		FT	7,424.85	$6.31	$46,851			58.73%	$27,516

Bulletin No. 179

1912 to January1, 2014

The Handy-Whitman Index® of Public Utility Construction Costs™

Trends of Construction Costs

COMPILED & PUBLISHED BY
Whitman, Requardt & Associates, LLP
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Tradition of Quality

The Handy-Whitman Index of Public Utility Construction Costs has been published continuously since 1924. Formerly the Handy Index, Bulletin Nos. 1 through 15 were developed by William W. Handy of Baltimore who had wide valuation experience in public utilities. *He believed that valuation studies should not be confined to rate cases but should be kept alive to the benefit of the utility industry.* He began publishing index numbers for electric and gas construction cost trends. Carrying on with the *tradition of quality*, after Mr. Handy's death, we continued publication for his estate beginning with Bulletin 16. Then, January 1, 1950, Whitman, Requardt and Associates, LLP purchased rights to the publication and have since been the sole publishers.

The name Handy-Whitman Index was adopted for Bulletin No. 53 and succeeding issues to combine the names of Mr. Handy and Ezra B. Whitman, a well-known valuation engineer. In 1957 an index of water utility construction costs was added. Mr. Whitman was a consultant on the publication of the Index until his death in 1963.

Whitman, Requardt and Associates, LLP

Ezra B. Whitman, a well-known valuation engineer was one of the founders of our firm. Major Whitman, as he was known from his World War I service, had already made a name for himself. Prior to the founding of the firm in 1915, Major Whitman had been President and Chief Engineer of the Water Board of the City of Baltimore. He designed the first rapid sand filtration plant serving a major city while he was the Baltimore Water Engineer. He was also president of the American Society of Civil Engineers and of the American Institute of Consulting Engineers and a chairman of the Public Service Commission of Maryland.

The Handy-Whitman Index is prepared especially for electric, gas and water utilities and is the only known publication of its kind available to the public. The list of subscribers is international and includes operating utilities, regulatory bodies, valuation engineers, equipment industries, insurance companies and reference libraries.

Tradition of Quality Continued

Since 1915, Whitman, Requardt and Associates, LLP, has been an independent consulting engineering firm organized to serve government, industry and private enterprise.

The firm has steadily expanded its engineering capabilities, providing complete services for civil, sanitary, structural, mechanical and electrical engineering and architectural projects from job inception through construction management. Construction cost data from utility projects of all types are available from design and valuation assignments. The staff is composed of specialists in these and related disciplines who bring a diverse professional and academic expertise to each assignment. A full-time staff is maintained specifically for preparing the Handy-Whitman Index.

Methods of Preparation of Indexes

An index number is a percentage ratio between the cost of an item at any stated time and its cost at a base period, or:

$$\text{Index Number} = \frac{\text{cost at stated time}}{\text{cost at base period}} \times 100$$

Index numbers have been prepared for many items, including wage rates, cost-of-living, material and equipment costs, and financial transactions. In the Handy-Whitman Index, index numbers have been developed for Building Construction, Electric Utility Construction, Gas Utility Construction and Water Utility Construction. Prices of basic materials such as cement, sand, gravel, cast iron pipe, wire, etc., are obtained from publications such as Engineering News-Record and checked against prices actually being paid for such materials. Labor cost trends are computed from labor rates obtained from sources such as the Construction Labor Research Council. Prices and cost trends of equipment are obtained from nationally recognized manufacturers, and operating utilities.

Handy-Whitman Index numbers are developed from wage rates and prices prevailing on January 1 and July 1 each year. The index numbers are generally based on 1973 = 100, although those items of recent origin are based on a later year.

The proportions of basic materials, labor, equipment and other cost components used in the Handy-Whitman Index are based on analyses developed during valuation and design assignments and on data furnished by utilities and industrial sources willing to assist with the Index. These data are reviewed continuously, and weightings and components are revised as required. This review assures that the indexes published reflect current construction practice.

Cost Trends Of

Electric Utility Construction

COST TREND TABLES
1912 to January 1, 2014

E-1

COST TRENDS OF ELECTRIC UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	FERC	COST INDEX NUMBERS													
			1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
1	Total Plant-All Steam Generation		18	18	18	19	18	18	17	17	19	19	19	21	21	21
2	Total Plant-All Steam & Nuclear Gen.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Total Plant-All Steam & Hydro Gen.		19	19	19	20	19	19	18	18	19	19	20	22	22	22
4																
5	**Steam Production Plant**															
6	Total Steam Production Plant		18	18	18	19	19	18	17	17	19	19	20	22	22	22
7	Structures & Improvements-Indoor	311	18	18	18	18	17	16	15	15	16	16	16	18	18	18
8	Structures & Improvements-Semi-Outdoor	311	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Boiler Plant Equipment-Coal Fired	312	16	16	16	16	16	15	14	14	16	16	17	19	19	19
10	Boiler Plant Equipment-Gas Fired	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Boiler Plant Piping Installed		18	19	19	19	19	19	17	16	16	16	16	18	18	18
12	Turbogenerator Units	314	19	19	19	22	23	22	21	22	25	26	26	29	30	30
13	Accessory Electrical Equipment	315	26	26	26	27	27	26	25	25	27	27	28	30	30	31
14	Misc. Power Plant Equipment	316	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15																
16	**Nuclear Production Plant**															
17	Total Nuclear Production Plant		-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Structures & Improvements	321	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Reactor Plant Equipment	322	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20																
21	**Hydro Production Plant**															
22	Total Hydraulic Production Plant		16	16	16	16	16	15	14	14	15	15	16	17	17	17
23	Structures & Improvements	331	18	18	18	18	17	16	15	15	16	16	16	18	18	18
24	Reservoirs, Dams & Waterways	332	17	17	17	17	17	16	14	14	15	15	15	17	17	17
25	Water Wheels, Turbines & Generators	333	12	12	13	14	14	14	13	13	14	16	16	17	18	19
26																
27	**Other Production Plant**															
28	Total Other Production Plant		-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Fuel Holders, Producers & Accessories	342	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	Gas Turbogenerators	344	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31																
32	**Transmission Plant**															
33	Total Transmission Plant		20	20	20	22	20	20	19	19	20	21	22	23	23	23
34	Station Equipment	353	30	29	29	31	30	29	28	29	32	32	33	35	36	36
35	Towers & Fixtures	354	16	16	16	16	16	16	14	14	15	15	16	17	17	17
36	Poles & Fixtures	355	13	12	12	12	12	12	11	10	12	12	12	14	14	15
37	Overhead Conductors & Devices	356	22	21	23	25	21	19	17	18	21	21	22	23	22	22
38	Underground Conduit	357	15	15	15	15	15	15	13	11	14	15	15	16	17	17
39	Underground Conductors & Devices	358	20	19	21	23	19	19	18	19	20	20	22	24	22	23
40																
41	**Distribution Plant**															
42	Total Distribution Plant		20	20	20	21	20	20	19	19	20	20	20	22	22	22
43	Station Equipment	362	28	27	26	27	27	27	26	26	28	28	29	31	31	32
44	Poles, Towers & Fixtures	364	14	13	13	13	14	13	12	12	13	13	13	15	15	15
45	Overhead Conductors & Devices	365	17	17	18	20	17	16	14	15	17	17	17	19	18	18
46	Underground Conduit	366	17	18	18	18	17	17	16	13	16	17	17	18	20	20
47	Underground Conductors & Devices	367	21	20	22	24	20	20	18	20	21	21	23	25	23	24
48	Line Transformers	368	57	53	52	56	55	53	51	53	54	55	55	59	61	61
49	Pad Mounted Transformers	368	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	Services-Overhead	369	16	15	17	18	15	14	13	14	15	15	16	17	17	17
51	Services-Underground	369	19	18	18	18	17	17	15	15	17	17	18	21	20	20
52	Meters Installed	370	42	42	42	42	42	42	42	44	46	48	48	48	48	48
53	Street Lighting-Overhead	373	21	20	22	22	22	21	20	21	22	22	23	24	24	23
54	Mast Arms & Luminaires Installed	373	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	Street Lighting-Underground	373	23	21	23	23	24	24	24	24	25	25	25	26	26	27
56																

E-1

COST TRENDS OF ELECTRIC UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	FERC	COST INDEX NUMBERS													
			1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
1	Total Plant-All Steam Generation		49	50	55	58	59	61	60	59	60	60	62	64	66	68
2	Total Plant-All Steam & Nuclear Gen.		-	-	-	-	-	-	-	-	-	-	-	63	65	68
3	Total Plant-All Steam & Hydro Gen.		48	49	54	57	58	59	59	59	59	60	61	63	65	68
4																
5	**Steam Production Plant**															
6	Total Steam Production Plant		48	49	56	61	63	64	64	62	62	62	63	64	66	68
7	Structures & Improvements-Indoor	311	41	43	46	49	50	52	53	53	54	55	56	57	59	61
8	Structures & Improvements-Semi-Outdoor	311	43	45	50	55	56	58	58	56	57	57	58	60	62	63
9	Boiler Plant Equipment-Coal Fired	312	45	47	53	59	61	64	64	64	64	64	66	67	69	71
10	Boiler Plant Equipment-Gas Fired	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Boiler Plant Piping Installed		40	42	47	51	53	56	58	59	59	60	60	61	63	66
12	Turbogenerator Units	314	57	58	68	75	80	79	75	69	68	67	68	69	70	72
13	Accessory Electrical Equipment	315	62	62	66	70	73	72	67	58	59	58	60	65	66	71
14	Misc. Power Plant Equipment	316	46	47	50	53	56	57	58	59	60	60	62	63	65	68
15																
16	**Nuclear Production Plant**															
17	Total Nuclear Production Plant		-	-	-	-	-	-	-	-	-	-	-	64	66	69
18	Structures & Improvements	321	-	-	-	-	-	-	-	-	-	-	-	60	62	64
19	Reactor Plant Equipment	322	-	-	-	-	-	-	-	-	-	-	-	65	67	70
20																
21	**Hydro Production Plant**															
22	Total Hydraulic Production Plant		41	43	47	50	52	54	55	55	56	57	59	60	63	65
23	Structures & Improvements	331	41	43	46	49	50	52	53	53	54	55	56	57	59	61
24	Reservoirs, Dams & Waterways	332	40	41	44	47	49	51	52	53	55	56	57	59	61	64
25	Water Wheels, Turbines & Generators	333	47	49	56	62	65	66	66	65	64	65	66	67	69	71
26																
27	**Other Production Plant**															
28	Total Other Production Plant		-	-	-	-	-	-	-	-	-	-	71	72	74	81
29	Fuel Holders, Producers & Accessories	342	-	-	-	-	-	-	-	-	-	-	61	62	64	66
30	Gas Turbogenerators	344	-	-	-	-	-	-	-	-	-	-	74	74	77	85
31																
32	**Transmission Plant**															
33	Total Transmission Plant		51	53	57	58	60	60	60	58	58	58	61	64	66	70
34	Station Equipment	353	69	70	77	81	84	83	77	69	68	64	68	72	74	78
35	Towers & Fixtures	354	41	42	45	48	50	52	53	54	56	57	59	62	65	68
36	Poles & Fixtures	355	40	41	44	47	48	49	51	51	53	54	55	57	60	62
37	Overhead Conductors & Devices	356	53	56	61	65	64	62	63	63	64	59	63	66	69	71
38	Underground Conduit	357	40	41	44	47	49	50	51	53	55	56	58	60	62	64
39	Underground Conductors & Devices	358	65	68	66	58	58	60	61	60	60	61	65	71	72	74
40																
41	**Distribution Plant**															
42	Total Distribution Plant		49	50	53	54	56	56	57	57	58	58	60	62	64	67
43	Station Equipment	362	61	62	68	72	74	74	72	67	68	66	68	70	71	76
44	Poles, Towers & Fixtures	364	39	40	44	46	47	48	50	50	52	53	54	57	59	61
45	Overhead Conductors & Devices	365	42	45	49	49	48	50	51	51	53	54	56	59	61	65
46	Underground Conduit	366	42	43	46	48	50	52	54	55	57	58	60	61	62	64
47	Underground Conductors & Devices	367	68	71	70	61	61	63	64	63	63	64	69	75	76	78
48	Line Transformers	368	112	112	115	121	118	114	112	108	98	93	93	95	95	98
49	Pad Mounted Transformers	368	102	102	102	102	102	102	99	95	94	95	90	90	93	96
50	Services-Overhead	369	39	42	45	43	43	45	47	47	48	49	51	54	57	61
51	Services-Underground	369	44	44	46	45	43	44	42	42	45	46	48	52	57	60
52	Meters Installed	370	74	71	74	78	80	82	83	82	82	82	82	82	82	83
53	Street Lighting-Overhead	373	54	54	57	62	65	65	64	64	64	65	66	67	68	72
54	Mast Arms & Luminaires Installed	373	-	57	64	70	70	66	66	66	65	65	67	68	72	71
55	Street Lighting-Underground	373	51	53	54	59	61	61	62	60	60	61	61	62	67	74
56																

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COST TRENDS OF ELECTRIC UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	FERC	COST INDEX NUMBERS													
			1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1	Total Plant-All Steam Generation		222	230	239	244	248	253	272	286	295	303	308	319	330	341
2	Total Plant-All Steam & Nuclear Gen.		221	230	238	243	247	252	271	285	294	302	307	317	329	340
3	Total Plant-All Steam & Hydro Gen.		221	229	238	243	247	252	270	285	294	302	307	317	329	340
4																
5	**Steam Production Plant**															
6	Total Steam Production Plant		230	238	248	256	260	267	285	299	308	315	323	335	347	358
7	Structures & Improvements-Indoor	311	198	206	218	225	233	239	251	265	271	274	281	294	307	316
8	Structures & Improvements-Semi-Outdoor	311	197	203	218	230	237	243	256	267	272	268	274	286	303	313
9	Boiler Plant Equipment-Coal Fired	312	241	248	258	267	272	281	299	313	327	336	344	355	364	375
10	Boiler Plant Equipment-Gas Fired	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Boiler Plant Piping Installed		227	226	231	237	240	252	276	289	290	297	303	311	315	327
12	Turbogenerator Units	314	232	245	254	258	257	263	281	294	300	308	314	325	340	352
13	Accessory Electrical Equipment	315	235	247	248	253	256	258	294	312	322	333	346	359	368	385
14	Misc. Power Plant Equipment	316	233	246	258	270	275	283	298	312	324	334	344	357	374	384
15																
16	**Nuclear Production Plant**															
17	Total Nuclear Production Plant		217	227	235	242	244	252	268	280	288	295	302	312	324	334
18	Structures & Improvements	321	197	206	216	224	227	233	241	250	257	262	269	281	294	299
19	Reactor Plant Equipment	322	220	229	236	243	248	259	275	289	296	303	309	317	326	337
20																
21	**Hydro Production Plant**															
22	Total Hydraulic Production Plant		208	217	229	237	243	248	260	270	274	279	286	297	309	318
23	Structures & Improvements	331	198	206	218	225	233	239	251	265	271	274	281	294	307	316
24	Reservoirs, Dams & Waterways	332	197	206	217	227	234	238	248	255	258	262	270	282	295	302
25	Water Wheels, Turbines & Generators	333	245	256	266	272	273	278	298	311	318	331	332	341	350	360
26																
27	**Other Production Plant**															
28	Total Other Production Plant		228	235	239	243	247	264	308	333	341	348	356	362	355	361
29	Fuel Holders, Producers & Accessories	342	226	228	235	244	251	259	275	291	300	307	313	321	328	336
30	Gas Turbogenerators	344	230	236	240	243	247	268	317	343	350	358	365	370	359	363
31																
32	**Transmission Plant**															
33	Total Transmission Plant		221	228	234	240	245	248	271	286	301	311	316	327	342	355
34	Station Equipment	353	231	235	242	248	250	259	272	288	305	310	320	331	347	360
35	Towers & Fixtures	354	210	218	233	245	252	258	270	280	287	283	288	301	318	328
36	Poles & Fixtures	355	216	224	235	240	245	248	272	294	307	331	348	358	379	390
37	Overhead Conductors & Devices	356	226	245	240	242	244	235	307	318	321	334	318	330	343	370
38	Underground Conduit	357	205	213	223	230	235	240	259	276	280	286	291	301	311	315
39	Underground Conductors & Devices	358	245	250	249	244	267	271	288	313	365	411	421	427	431	441
40																
41	**Distribution Plant**															
42	Total Distribution Plant		215	223	229	234	237	239	257	272	280	287	290	298	307	317
43	Station Equipment	362	221	225	230	235	238	245	269	290	308	312	314	320	331	347
44	Poles, Towers & Fixtures	364	221	227	236	243	248	249	263	276	286	303	319	331	350	362
45	Overhead Conductors & Devices	365	225	241	248	250	252	250	301	315	318	330	322	338	352	375
46	Underground Conduit	366	191	206	219	225	230	235	255	281	282	283	286	295	307	313
47	Underground Conductors & Devices	367	207	211	213	220	231	235	244	261	272	281	285	290	294	305
48	Line Transformers	368	206	210	213	215	217	215	219	228	231	232	237	239	244	240
49	Pad Mounted Transformers	368	184	187	206	209	217	239	264	280	286	297	297	306	308	309
50	Services-Overhead	369	198	206	226	227	228	232	257	274	276	284	285	294	306	320
51	Services-Underground	369	177	197	204	188	183	195	211	229	232	226	225	226	236	243
52	Meters Installed	370	187	201	204	207	212	212	201	192	193	209	208	212	203	200
53	Street Lighting-Overhead	373	255	258	272	284	283	271	278	289	298	311	322	337	353	368
54	Mast Arms & Luminaires Installed	373	256	264	284	296	289	279	284	299	309	324	337	348	369	381
55	Street Lighting-Underground	373	259	261	275	286	287	273	280	290	300	312	323	339	352	366
56																

E-1

COST TRENDS OF ELECTRIC UTILITY CONSTRUCTION

NORTH ATLANTIC REGION (1973=100)

Line	CONSTRUCTION AND EQUIPMENT	FERC	COST INDEX NUMBERS											
			2005		2006		2007		2008		2009		2010	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Total Plant-All Steam Generation		459	466	485	499	527	538	576	592	604	588	605	614
2	Total Plant-All Steam & Nuclear Gen.		456	463	483	497	524	535	572	588	600	584	601	610
3	Total Plant-All Steam & Hydro Gen.		455	462	482	496	523	535	572	588	600	584	601	610
4														
5	**Steam Production Plant**													
6	Total Steam Production Plant		489	493	505	515	532	546	567	596	594	578	593	604
7	Structures & Improvements-Indoor	311	443	447	456	465	481	495	517	545	553	539	555	561
8	Structures & Improvements-Semi-Outdoor	311	427	434	444	452	465	496	521	533	539	516	528	530
9	Boiler Plant Equipment-Coal Fired	312	505	509	523	530	543	554	574	601	609	595	608	615
10	Boiler Plant Equipment-Gas Fired	312	-	-	-	-	-	-	-	-	-	-	-	-
11	Boiler Plant Piping Installed		464	468	486	491	498	497	525	563	584	568	569	580
12	Turbogenerator Units	314	476	473	482	494	510	515	531	576	534	508	523	546
13	Accessory Electrical Equipment	315	581	591	611	633	685	707	745	769	805	823	852	869
14	Misc. Power Plant Equipment	316	535	538	555	562	566	570	588	625	633	624	633	640
15														
16	**Nuclear Production Plant**													
17	Total Nuclear Production Plant		454	457	469	479	495	501	518	545	541	531	546	556
18	Structures & Improvements	321	403	410	417	425	435	440	456	471	475	467	481	485
19	Reactor Plant Equipment	322	451	452	466	474	489	492	505	534	531	521	533	541
20														
21	**Hydro Production Plant**													
22	Total Hydraulic Production Plant		401	405	412	418	431	451	468	486	487	480	491	497
23	Structures & Improvements	331	443	447	456	465	481	495	517	545	553	539	555	561
24	Reservoirs, Dams & Waterways	332	388	394	400	405	413	439	457	466	470	465	475	478
25	Water Wheels, Turbines & Generators	333	405	403	411	422	442	449	462	500	488	476	487	504
26														
27	**Other Production Plant**													
28	Total Other Production Plant		443	450	459	471	530	543	594	616	635	667	687	700
29	Fuel Holders, Producers & Accessories	342	467	473	481	490	506	512	532	567	577	560	566	566
30	Gas Turbogenerators	344	426	434	442	453	518	530	588	609	627	667	688	702
31														
32	**Transmission Plant**													
33	Total Transmission Plant		474	486	509	523	549	564	604	629	642	610	636	638
34	Station Equipment	353	494	506	526	543	580	598	620	642	658	657	681	687
35	Towers & Fixtures	354	451	456	469	473	485	514	538	540	553	531	544	545
36	Poles & Fixtures	355	493	509	516	528	546	549	580	589	608	612	630	610
37	Overhead Conductors & Devices	356	469	495	545	576	609	622	670	730	737	537	615	621
38	Underground Conduit	357	454	454	467	472	501	496	521	555	576	559	570	575
39	Underground Conductors & Devices	358	541	558	599	603	617	623	801	838	844	855	856	849
40														
41	**Distribution Plant**													
42	Total Distribution Plant		419	428	455	473	513	521	575	576	602	591	609	617
43	Station Equipment	362	463	471	496	511	550	570	594	617	631	636	662	673
44	Poles, Towers & Fixtures	364	472	476	486	495	519	520	536	549	570	570	589	587
45	Overhead Conductors & Devices	365	514	537	576	601	637	652	698	743	759	646	710	722
46	Underground Conduit	366	435	438	460	463	490	489	513	521	545	544	546	549
47	Underground Conductors & Devices	367	396	407	435	440	522	529	568	600	665	657	618	625
48	Line Transformers	368	282	290	327	367	416	423	608	513	540	563	592	617
49	Pad Mounted Transformers	368	497	546	566	656	694	824	648	764	736	674	681	660
50	Services-Overhead	369	419	426	449	448	478	479	501	510	524	491	521	528
51	Services-Underground	369	291	304	345	382	369	365	362	363	342	343	350	372
52	Meters Installed	370	315	315	318	323	329	336	340	341	346	346	361	362
53	Street Lighting-Overhead	373	509	517	534	600	626	636	649	680	748	760	787	736
54	Mast Arms & Luminaires Installed	373	491	505	531	561	583	594	585	595	718	714	728	741
55	Street Lighting-Underground	373	519	526	541	619	649	660	680	716	778	795	826	755
56														

Sansoucy Email

From: Sansoucy Email
Sent: Wednesday, September 09, 2015 4:41 PM
To: Town of Sandwich (tos@cyberpine.net)
Subject: 2015 Summary Appraisal Report
Attachments: Sandwich 9-9-15.pdf

Good afternoon,

Please find enclosed our summary appraisal report (formerly referred to as Letter Report), which includes a summary of our appraisal results for the Town of Sandwich as of April 1, 2015. A hardcopy has also been placed into the USPS. Please call should you have any questions at all.

Thank you,
Becka

George E. Sansoucy, P.E., LLC
89 Reed Road
Lancaster, NH 03584
Phone: 603-788-4000
Fax: 603-788-2798
Email: gsansoucy@sansoucy.com

STATEMENT OF CONFIDENTIALITY:
The information contained in this electronic message and any attachments to this message are intended for the exclusive use of the addressee(s) and may contain confidential or privileged information. If you are not the intended recipient, please notify George E. Sansoucy, P.E., LLC immediately at (603)788-4000 and destroy all copies of this message and any attachments contained therein.

	A	B	C	D	E	F	G	H	I	J
Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
181	TRANSFORMER, POWER, TANK/ANCILLARIES 81-250KV	2006	489,529.25	362	1.31	$641,283	5	65	92.31%	$591,968
182	TRANSFORMER, POWER, WINDINGS 81-250KV	2006	979,058.51	362	1.31	$1,282,567	5	65	92.31%	$1,183,938
183	TRANSFORMER, STATION SERVICE 20- 25 KV	2006	11,414.26	362	1.31	$14,953	5	65	92.31%	$13,803
184	CHARGER,BATTERY	2009	5,575.26	362	1.09	$6,077	2	65	96.92%	$5,890
185	CABINET,SCADA	2010	50,003.60	362	1.04	$52,004	1	65	98.46%	$51,203
186	CABINET,SCADA	2011	15,220.79	362	1.00	$15,221	0	65	100.00%	$15,221
187	Station equipment - Distribution 362		3,475,173.50	362		$4,544,070				$4,191,989
188	POLE, WOOD 25 FOOT JOINTLY OWNED	1953	41.72	364	15.72	$656	58	60	20.00%	$131
189	POLE, WOOD 30 FOOT FULLY OWNED	1953	28.61	364	15.72	$450	58	60	20.00%	$90
190	POLE, WOOD 30 FOOT JOINTLY OWNED	1953	292.60	364	15.72	$4,600	58	60	20.00%	$920
191	POLE, WOOD 35 FOOT JOINTLY OWNED	1953	16.94	364	15.72	$266	58	60	20.00%	$53
192	APPURTENANCE	1965	2,018.17	364	10.39	$20,969	46	60	23.33%	$4,892
193	PLATFORM,TRANSFORMER	1965	150.74	364	10.39	$1,566	46	60	23.33%	$365
194	POLE, WOOD 25 FOOT JOINTLY OWNED	1965	432.12	364	10.39	$4,490	46	60	23.33%	$1,048
195	POLE, WOOD 30 FOOT FULLY OWNED	1965	375.35	364	10.39	$3,900	46	60	23.33%	$910
196	POLE, WOOD 30 FOOT JOINTLY OWNED	1965	433.03	364	10.39	$4,499	46	60	23.33%	$1,050
197	POLE, WOOD 35 FOOT JOINTLY OWNED	1965	8,372.41	364	10.39	$86,989	46	60	23.33%	$20,295
198	POLE, WOOD 40 FOOT JOINTLY OWNED	1965	600.85	364	10.39	$6,243	46	60	23.33%	$1,456
199	APPURTENANCE	1970	3,688.79	364	7.57	$27,924	41	60	31.67%	$8,844
200	POLE, WOOD 25 FOOT FULLY OWNED	1970	298.17	364	7.57	$2,257	41	60	31.67%	$715
201	POLE, WOOD 25 FOOT JOINTLY OWNED	1970	446.02	364	7.57	$3,376	41	60	31.67%	$1,069
202	POLE, WOOD 30 FOOT FULLY OWNED	1970	165.12	364	7.57	$1,250	41	60	31.67%	$396
203	POLE, WOOD 30 FOOT JOINTLY OWNED	1970	267.09	364	7.57	$2,022	41	60	31.67%	$640
204	POLE, WOOD 35 FOOT JOINTLY OWNED	1970	4,464.51	364	7.57	$33,796	41	60	31.67%	$10,703
205	POLE, WOOD 40 FOOT JOINTLY OWNED	1970	200.76	364	7.57	$1,520	41	60	31.67%	$481
206	APPURTENANCE	1971	1,262.77	364	7.05	$8,903	40	60	33.33%	$2,967
207	POLE, WOOD 25 FOOT JOINTLY OWNED	1971	94.87	364	7.05	$669	40	60	33.33%	$223
208	POLE, WOOD 30 FOOT JOINTLY OWNED	1971	49.21	364	7.05	$347	40	60	33.33%	$116
209	POLE, WOOD 35 FOOT JOINTLY OWNED	1971	284.20	364	7.05	$2,004	40	60	33.33%	$668
210	APPURTENANCE	1972	2,115.14	364	6.13	$12,966	39	60	35.00%	$4,538
211	POLE, WOOD 25 FOOT FULLY OWNED	1972	282.84	364	6.13	$1,734	39	60	35.00%	$607
212	POLE, WOOD 25 FOOT JOINTLY OWNED	1972	23.71	364	6.13	$145	39	60	35.00%	$51
213	POLE, WOOD 30 FOOT JOINTLY OWNED	1972	94.47	364	6.13	$579	39	60	35.00%	$203
214	POLE, WOOD 35 FOOT FULLY OWNED	1972	493.38	364	6.13	$3,024	39	60	35.00%	$1,058
215	POLE, WOOD 35 FOOT JOINTLY OWNED	1972	276.86	364	6.13	$1,697	39	60	35.00%	$594
216	POLE, WOOD 40 FOOT JOINTLY OWNED	1972	171.92	364	6.13	$1,054	39	60	35.00%	$369
217	APPURTENANCE	1973	2,313.81	364	4.98	$11,523	38	60	36.67%	$4,225
218	POLE, WOOD 35 FOOT FULLY OWNED	1973	148.67	364	4.98	$740	38	60	36.67%	$271
219	POLE, WOOD 35 FOOT JOINTLY OWNED	1973	921.79	364	4.98	$4,591	38	60	36.67%	$1,684
220	POLE, WOOD 40 FOOT JOINTLY OWNED	1973	427.77	364	4.98	$2,130	38	60	36.67%	$781
221	APPURTENANCE	1974	2,537.97	364	4.32	$10,964	37	60	38.33%	$4,203
222	POLE, WOOD 25 FOOT JOINTLY OWNED	1974	162.70	364	4.32	$703	37	60	38.33%	$269
223	POLE, WOOD 35 FOOT FULLY OWNED	1974	945.59	364	4.32	$4,085	37	60	38.33%	$1,566
224	POLE, WOOD 35 FOOT JOINTLY OWNED	1974	2,525.10	364	4.32	$10,908	37	60	38.33%	$4,181
225	POLE, WOOD 40 FOOT JOINTLY OWNED	1974	906.54	364	4.32	$3,916	37	60	38.33%	$1,501
226	APPURTENANCE	1975	1,176.11	364	4.29	$5,046	36	60	40.00%	$2,018
227	POLE, WOOD 25 FOOT JOINTLY OWNED	1975	32.79	364	4.29	$141	36	60	40.00%	$56

	A	B	C	D	E	F	G	H	I	J
Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
228	POLE, WOOD 30 FOOT FULLY OWNED	1975	0.01	364	4.29	$0	36	60	40.00%	$0
229	POLE, WOOD 30 FOOT JOINTLY OWNED	1975	142.10	364	4.29	$610	36	60	40.00%	$244
230	POLE, WOOD 35 FOOT JOINTLY OWNED	1975	1,594.89	364	4.29	$6,842	36	60	40.00%	$2,737
231	POLE, WOOD 40 FOOT JOINTLY OWNED	1975	193.69	364	4.29	$831	36	60	40.00%	$332
232	APPURTENANCE	1976	1,485.66	364	4.14	$6,151	35	60	41.67%	$2,563
233	POLE, WOOD 25 FOOT FULLY OWNED	1976	123.70	364	4.14	$512	35	60	41.67%	$213
234	POLE, WOOD 25 FOOT JOINTLY OWNED	1976	56.70	364	4.14	$235	35	60	41.67%	$98
235	POLE, WOOD 30 FOOT FULLY OWNED	1976	220.13	364	4.14	$911	35	60	41.67%	$380
236	POLE, WOOD 35 FOOT JOINTLY OWNED	1976	1,208.23	364	4.14	$5,002	35	60	41.67%	$2,084
237	POLE, WOOD 40 FOOT JOINTLY OWNED	1976	476.90	364	4.14	$1,974	35	60	41.67%	$823
238	APPURTENANCE	1977	7,572.42	364	3.90	$29,532	34	60	43.33%	$12,796
239	POLE, WOOD 25 FOOT FULLY OWNED	1977	401.25	364	3.90	$1,565	34	60	43.33%	$678
240	POLE, WOOD 25 FOOT JOINTLY OWNED	1977	51.24	364	3.90	$200	34	60	43.33%	$87
241	POLE, WOOD 30 FOOT FULLY OWNED	1977	0.01	364	3.90	$0	34	60	43.33%	$0
242	POLE, WOOD 30 FOOT JOINTLY OWNED	1977	193.61	364	3.90	$755	34	60	43.33%	$327
243	POLE, WOOD 35 FOOT JOINTLY OWNED	1977	875.13	364	3.90	$3,413	34	60	43.33%	$1,479
244	POLE, WOOD 40 FOOT JOINTLY OWNED	1977	3,040.65	364	3.90	$11,859	34	60	43.33%	$5,139
245	POLE, WOOD 45 FOOT JOINTLY OWNED	1977	553.60	364	3.90	$2,159	34	60	43.33%	$935
246	APPURTENANCE	1978	959.33	364	3.48	$3,338	33	60	45.00%	$1,502
247	POLE, WOOD 25 FOOT FULLY OWNED	1978	130.54	364	3.48	$454	33	60	45.00%	$204
248	POLE, WOOD 25 FOOT JOINTLY OWNED	1978	103.08	364	3.48	$359	33	60	45.00%	$162
249	POLE, WOOD 30 FOOT JOINTLY OWNED	1978	104.27	364	3.48	$363	33	60	45.00%	$163
250	POLE, WOOD 35 FOOT JOINTLY OWNED	1978	1,415.99	364	3.48	$4,928	33	60	45.00%	$2,218
251	POLE, WOOD 40 FOOT JOINTLY OWNED	1978	1,134.62	364	3.48	$3,948	33	60	45.00%	$1,777
252	APPURTENANCE	1979	2,657.29	364	3.21	$8,530	32	60	46.67%	$3,981
253	POLE, WOOD 30 FOOT JOINTLY OWNED	1979	115.44	364	3.21	$371	32	60	46.67%	$173
254	POLE, WOOD 35 FOOT JOINTLY OWNED	1979	1,125.60	364	3.21	$3,613	32	60	46.67%	$1,686
255	POLE, WOOD 40 FOOT JOINTLY OWNED	1979	1,629.68	364	3.21	$5,231	32	60	46.67%	$2,441
256	APPURTENANCE	1980	3,442.30	364	2.96	$10,189	31	60	48.33%	$4,924
257	POLE, WOOD 25 FOOT FULLY OWNED	1980	158.64	364	2.96	$470	31	60	48.33%	$227
258	POLE, WOOD 30 FOOT FULLY OWNED	1980	1,014.36	364	2.96	$3,003	31	60	48.33%	$1,451
259	POLE, WOOD 35 FOOT FULLY OWNED	1980	1,319.50	364	2.96	$3,906	31	60	48.33%	$1,888
260	POLE, WOOD 35 FOOT JOINTLY OWNED	1980	214.32	364	2.96	$634	31	60	48.33%	$306
261	POLE, WOOD 40 FOOT JOINTLY OWNED	1980	3,097.39	364	2.96	$9,168	31	60	48.33%	$4,431
262	POLE, WOOD 45 FOOT JOINTLY OWNED	1980	184.00	364	2.96	$545	31	60	48.33%	$263
263	POLE, WOOD 50 FOOT JOINTLY OWNED	1980	474.00	364	2.96	$1,403	31	60	48.33%	$678
264	APPURTENANCE	1981	963.30	364	2.77	$2,668	30	60	50.00%	$1,334
265	POLE, WOOD 30 FOOT FULLY OWNED	1981	269.10	364	2.77	$745	30	60	50.00%	$373
266	POLE, WOOD 30 FOOT JOINTLY OWNED	1981	417.28	364	2.77	$1,156	30	60	50.00%	$578
267	POLE, WOOD 35 FOOT JOINTLY OWNED	1981	348.26	364	2.77	$965	30	60	50.00%	$483
268	POLE, WOOD 40 FOOT JOINTLY OWNED	1981	763.42	364	2.77	$2,115	30	60	50.00%	$1,058
269	APPURTENANCE	1982	5,105.13	364	2.70	$13,784	29	60	51.67%	$7,122
270	POLE, WOOD 30 FOOT FULLY OWNED	1982	291.99	364	2.70	$788	29	60	51.67%	$407
271	POLE, WOOD 30 FOOT JOINTLY OWNED	1982	1,475.33	364	2.70	$3,983	29	60	51.67%	$2,058
272	POLE, WOOD 35 FOOT JOINTLY OWNED	1982	2,110.12	364	2.70	$5,697	29	60	51.67%	$2,944
273	POLE, WOOD 40 FOOT JOINTLY OWNED	1982	2,218.91	364	2.70	$5,991	29	60	51.67%	$3,096
274	APPURTENANCE	1983	1,856.75	364	2.60	$4,828	28	60	53.33%	$2,575

	A	B	C	D	E	F	G	H	I	J
Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
275	POLE, WOOD 30 FOOT JOINTLY OWNED	1983	369.84	364	2.60	$962	28	60	53.33%	$513
276	POLE, WOOD 35 FOOT JOINTLY OWNED	1983	133.06	364	2.60	$346	28	60	53.33%	$185
277	POLE, WOOD 40 FOOT JOINTLY OWNED	1983	622.89	364	2.60	$1,620	28	60	53.33%	$864
278	POLE, WOOD 45 FOOT JOINTLY OWNED	1983	800.23	364	2.60	$2,081	28	60	53.33%	$1,110
279	APPURTENANCE	1984	3,583.77	364	2.52	$9,031	27	60	55.00%	$4,967
280	POLE, WOOD 30 FOOT FULLY OWNED	1984	0.01	364	2.52	$0	27	60	55.00%	$0
281	POLE, WOOD 30 FOOT JOINTLY OWNED	1984	559.26	364	2.52	$1,409	27	60	55.00%	$775
282	POLE, WOOD 35 FOOT JOINTLY OWNED	1984	457.62	364	2.52	$1,153	27	60	55.00%	$634
283	POLE, WOOD 40 FOOT JOINTLY OWNED	1984	3,305.39	364	2.52	$8,330	27	60	55.00%	$4,582
284	POLE, WOOD 45 FOOT JOINTLY OWNED	1984	334.54	364	2.52	$843	27	60	55.00%	$464
285	APPURTENANCE	1985	7,486.55	364	2.47	$18,492	26	60	56.67%	$10,479
286	POLE, WOOD 25 FOOT JOINTLY OWNED	1985	87.15	364	2.47	$215	26	60	56.67%	$122
287	POLE, WOOD 30 FOOT FULLY OWNED	1985	595.60	364	2.47	$1,471	26	60	56.67%	$834
288	POLE, WOOD 30 FOOT JOINTLY OWNED	1985	743.85	364	2.47	$1,837	26	60	56.67%	$1,041
289	POLE, WOOD 35 FOOT JOINTLY OWNED	1985	1,274.24	364	2.47	$3,147	26	60	56.67%	$1,783
290	POLE, WOOD 40 FOOT JOINTLY OWNED	1985	3,892.52	364	2.47	$9,615	26	60	56.67%	$5,449
291	POLE, WOOD 50 FOOT JOINTLY OWNED	1985	423.29	364	2.47	$1,046	26	60	56.67%	$593
292	APPURTENANCE	1986	5,005.64	364	2.46	$12,314	25	60	58.33%	$7,183
293	POLE, WOOD 30 FOOT FULLY OWNED	1986	293.18	364	2.46	$721	25	60	58.33%	$421
294	POLE, WOOD 30 FOOT JOINTLY OWNED	1986	114.18	364	2.46	$281	25	60	58.33%	$164
295	POLE, WOOD 35 FOOT JOINTLY OWNED	1986	144.99	364	2.46	$357	25	60	58.33%	$208
296	POLE, WOOD 40 FOOT JOINTLY OWNED	1986	2,980.04	364	2.46	$7,331	25	60	58.33%	$4,276
297	POLE, WOOD 45 FOOT FULLY OWNED	1986	(654.87)	364	2.46	-$1,611	25	60	58.33%	-$940
298	POLE, WOOD 45 FOOT JOINTLY OWNED	1986	374.85	364	2.46	$922	25	60	58.33%	$538
299	APPURTENANCE	1987	13,033.34	364	2.33	$30,368	24	60	60.00%	$18,221
300	POLE, WOOD 30 FOOT JOINTLY OWNED	1987	145.60	364	2.33	$339	24	60	60.00%	$203
301	POLE, WOOD 35 FOOT FULLY OWNED	1987	317.72	364	2.33	$740	24	60	60.00%	$444
302	POLE, WOOD 35 FOOT JOINTLY OWNED	1987	1,448.53	364	2.33	$3,375	24	60	60.00%	$2,025
303	POLE, WOOD 40 FOOT FULLY OWNED	1987	(2,199.92)	364	2.33	-$5,126	24	60	60.00%	-$3,076
304	POLE, WOOD 40 FOOT JOINTLY OWNED	1987	4,413.85	364	2.33	$10,284	24	60	60.00%	$6,170
305	POLE, WOOD 45 FOOT JOINTLY OWNED	1987	498.78	364	2.33	$1,162	24	60	60.00%	$697
306	POLE, WOOD 35 FOOT JOINTLY OWNED	1988	(82.41)	364	2.22	-$183	23	60	61.67%	-$113
307	POLE, WOOD 40 FOOT JOINTLY OWNED	1988	614.63	364	2.22	$1,364	23	60	61.67%	$841
308	POLE, WOOD 45 FOOT JOINTLY OWNED	1988	(323.29)	364	2.22	-$718	23	60	61.67%	-$443
309	APPURTENANCE	1988	999.42	364	2.22	$2,219	23	60	61.67%	$1,368
310	POLE, WOOD 40 FOOT FULLY OWNED	1988	(1,382.63)	364	2.22	-$3,069	23	60	61.67%	-$1,893
311	POLE, WOOD 45 FOOT FULLY OWNED	1988	(475.90)	364	2.22	-$1,056	23	60	61.67%	-$651
312	APPURTENANCE	1989	17,448.05	364	2.14	$37,339	22	60	63.33%	$23,647
313	POLE, WOOD 25 FOOT FULLY OWNED	1989	188.97	364	2.14	$404	22	60	63.33%	$256
314	POLE, WOOD 30 FOOT FULLY OWNED	1989	323.68	364	2.14	$693	22	60	63.33%	$439
315	POLE, WOOD 30 FOOT JOINTLY OWNED	1989	323.69	364	2.14	$693	22	60	63.33%	$439
316	POLE, WOOD 35 FOOT FULLY OWNED	1989	45.10	364	2.14	$97	22	60	63.33%	$61
317	POLE, WOOD 35 FOOT JOINTLY OWNED	1989	1,904.90	364	2.14	$4,076	22	60	63.33%	$2,581
318	POLE, WOOD 40 FOOT FULLY OWNED	1989	6,001.33	364	2.14	$12,843	22	60	63.33%	$8,133
319	POLE, WOOD 40 FOOT JOINTLY OWNED	1989	2,408.99	364	2.14	$5,155	22	60	63.33%	$3,265
320	POLE, WOOD 45 FOOT JOINTLY OWNED	1989	2,845.66	364	2.14	$6,090	22	60	63.33%	$3,857
321	APPURTENANCE	1990	(3,700.00)	364	2.02	-$7,474	21	60	65.00%	-$4,858

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Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
322	POLE, WOOD 30 FOOT JOINTLY OWNED	1990	214.00	364	2.02	$432	21	60	65.00%	$281
323	POLE, WOOD 40 FOOT FULLY OWNED	1990	(12,901.00)	364	2.02	-$26,060	21	60	65.00%	-$16,939
324	APPURTENANCE	1990	15,299.34	364	2.02	$30,905	21	60	65.00%	$20,088
325	POLE, WOOD 30 FOOT FULLY OWNED	1990	126.21	364	2.02	$255	21	60	65.00%	$166
326	POLE, WOOD 30 FOOT JOINTLY OWNED	1990	1,113.98	364	2.02	$2,250	21	60	65.00%	$1,463
327	POLE, WOOD 35 FOOT JOINTLY OWNED	1990	329.41	364	2.02	$665	21	60	65.00%	$432
328	POLE, WOOD 40 FOOT FULLY OWNED	1990	2,214.59	364	2.02	$4,473	21	60	65.00%	$2,907
329	POLE, WOOD 40 FOOT JOINTLY OWNED	1990	3,321.87	364	2.02	$6,710	21	60	65.00%	$4,362
330	POLE, WOOD 45 FOOT JOINTLY OWNED	1990	388.44	364	2.02	$785	21	60	65.00%	$510
331	APPURTENANCE	1991	(774.00)	364	1.92	-$1,486	20	60	66.67%	-$991
332	APPURTENANCE	1991	11,108.18	364	1.92	$21,328	20	60	66.67%	$14,219
333	POLE, WOOD 30 FOOT FULLY OWNED	1991	765.95	364	1.92	$1,471	20	60	66.67%	$981
334	POLE, WOOD 35 FOOT FULLY OWNED	1991	4,563.05	364	1.92	$8,761	20	60	66.67%	$5,841
335	POLE, WOOD 40 FOOT FULLY OWNED	1991	6,455.08	364	1.92	$12,394	20	60	66.67%	$8,263
336	POLE, WOOD 45 FOOT JOINTLY OWNED	1991	164.15	364	1.92	$315	20	60	66.67%	$210
337	APPURTENANCE	1992	16,675.90	364	1.85	$30,850	19	60	68.33%	$21,080
338	APPURTENANCE	1992	(1,575.00)	364	1.85	-$2,914	19	60	68.33%	-$1,991
339	POLE, WOOD 30 FOOT JOINTLY OWNED	1992	531.09	364	1.85	$983	19	60	68.33%	$672
340	POLE, WOOD 35 FOOT FULLY OWNED	1992	3,534.85	364	1.85	$6,539	19	60	68.33%	$4,468
341	POLE, WOOD 35 FOOT JOINTLY OWNED	1992	2,651.14	364	1.85	$4,905	19	60	68.33%	$3,352
342	POLE, WOOD 40 FOOT FULLY OWNED	1992	1,864.80	364	1.85	$3,450	19	60	68.33%	$2,357
343	POLE, WOOD 40 FOOT JOINTLY OWNED	1992	5,594.41	364	1.85	$10,350	19	60	68.33%	$7,072
344	POLE, WOOD 40 FOOT JOINTLY OWNED	1992	937.50	364	1.85	$1,734	19	60	68.33%	$1,185
345	APPURTENANCE	1993	(561.06)	364	1.75	-$982	18	60	70.00%	-$687
346	APPURTENANCE	1993	35,624.91	364	1.75	$62,344	18	60	70.00%	$43,641
347	PLATFORM,TRANSFORMER	1993	8,944.66	364	1.75	$15,653	18	60	70.00%	$10,957
348	POLE, WOOD 30 FOOT FULLY OWNED	1993	235.95	364	1.75	$413	18	60	70.00%	$289
349	POLE, WOOD 35 FOOT FULLY OWNED	1993	1,743.82	364	1.75	$3,052	18	60	70.00%	$2,136
350	POLE, WOOD 35 FOOT JOINTLY OWNED	1993	435.95	364	1.75	$763	18	60	70.00%	$534
351	POLE, WOOD 40 FOOT FULLY OWNED	1993	842.23	364	1.75	$1,474	18	60	70.00%	$1,032
352	POLE, WOOD 40 FOOT JOINTLY OWNED	1993	8,823.30	364	1.75	$15,441	18	60	70.00%	$10,809
353	POLE, WOOD 45 FOOT JOINTLY OWNED	1993	4,955.60	364	1.75	$8,672	18	60	70.00%	$6,070
354	POLE, WOOD 45 FOOT FULLY OWNED	1993	1,238.90	364	1.75	$2,168	18	60	70.00%	$1,518
355	POLE, WOOD 55 FOOT JOINTLY OWNED	1993	931.06	364	1.75	$1,629	18	60	70.00%	$1,140
356	POLE, WOOD 55 FOOT FULLY OWNED	1993	931.06	364	1.75	$1,629	18	60	70.00%	$1,140
357	APPURTENANCE	1994	3,208.64	364	1.69	$5,423	17	60	71.67%	$3,887
358	POLE, WOOD 30 FOOT FULLY OWNED	1994	23.55	364	1.69	$40	17	60	71.67%	$29
359	POLE, WOOD 30 FOOT JOINTLY OWNED	1994	23.55	364	1.69	$40	17	60	71.67%	$29
360	POLE, WOOD 35 FOOT FULLY OWNED	1994	(121.74)	364	1.69	-$206	17	60	71.67%	-$148
361	POLE, WOOD 35 FOOT JOINTLY OWNED	1994	(852.21)	364	1.69	-$1,440	17	60	71.67%	-$1,032
362	POLE, WOOD 40 FOOT FULLY OWNED	1994	(489.01)	364	1.69	-$826	17	60	71.67%	-$592
363	POLE, WOOD 40 FOOT JOINTLY OWNED	1994	(133.36)	364	1.69	-$225	17	60	71.67%	-$161
364	POLE, WOOD 45 FOOT FULLY OWNED	1994	250.17	364	1.69	$423	17	60	71.67%	$303
365	POLE, WOOD 45 FOOT JOINTLY OWNED	1994	250.17	364	1.69	$423	17	60	71.67%	$303
366	APPURTENANCE	1995	15,842.90	364	1.65	$26,141	16	60	73.33%	$19,169
367	POLE, WOOD 30 FOOT FULLY OWNED	1995	247.72	364	1.65	$409	16	60	73.33%	$300
368	POLE, WOOD 30 FOOT JOINTLY OWNED	1995	743.16	364	1.65	$1,226	16	60	73.33%	$899

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369	POLE, WOOD 35 FOOT FULLY OWNED	1995	241.64	364	1.65	$399	16	60	73.33%	$293
370	POLE, WOOD 35 FOOT JOINTLY OWNED	1995	2,216.49	364	1.65	$3,657	16	60	73.33%	$2,682
371	POLE, WOOD 40 FOOT FULLY OWNED	1995	4,109.94	364	1.65	$6,781	16	60	73.33%	$4,973
372	POLE, WOOD 45 FOOT FULLY OWNED	1995	3,428.57	364	1.65	$5,657	16	60	73.33%	$4,148
373	POLE, WOOD 45 FOOT JOINTLY OWNED	1995	6,000.00	364	1.65	$9,900	16	60	73.33%	$7,260
374	APPURTENANCE	1996	39,646.57	364	1.60	$63,435	15	60	75.00%	$47,576
375	POLE, WOOD 30 FOOT FULLY OWNED	1996	147.04	364	1.60	$235	15	60	75.00%	$176
376	POLE, WOOD 30 FOOT JOINTLY OWNED	1996	588.14	364	1.60	$941	15	60	75.00%	$706
377	POLE, WOOD 35 FOOT FULLY OWNED	1996	202.31	364	1.60	$324	15	60	75.00%	$243
378	POLE, WOOD 35 FOOT JOINTLY OWNED	1996	1,011.56	364	1.60	$1,618	15	60	75.00%	$1,214
379	POLE, WOOD 40 FOOT FULLY OWNED	1996	8,890.91	364	1.60	$14,225	15	60	75.00%	$10,669
380	POLE, WOOD 40 FOOT JOINTLY OWNED	1996	10,459.89	364	1.60	$16,736	15	60	75.00%	$12,552
381	POLE, WOOD 45 FOOT FULLY OWNED	1996	10,705.36	364	1.60	$17,129	15	60	75.00%	$12,847
382	POLE, WOOD 45 FOOT JOINTLY OWNED	1996	11,335.08	364	1.60	$18,136	15	60	75.00%	$13,602
383	POLE, WOOD 50 FOOT FULLY OWNED	1996	1,021.43	364	1.60	$1,634	15	60	75.00%	$1,226
384	POLE, WOOD 55 FOOT FULLY OWNED	1996	4,120.28	364	1.60	$6,592	15	60	75.00%	$4,944
385	POLE, WOOD 60 FOOT FULLY OWNED	1996	2,455.54	364	1.60	$3,929	15	60	75.00%	$2,947
386	POLE, WOOD 60 FOOT JOINTLY OWNED	1996	1,227.77	364	1.60	$1,964	15	60	75.00%	$1,473
387	APPURTENANCE	1997	20,028.70	364	1.58	$31,645	14	60	76.67%	$24,262
388	APPURTENANCE	1997	91.03	364	1.58	$144	14	60	76.67%	$110
389	POLE, WOOD 35 FOOT FULLY OWNED	1997	1,295.30	364	1.58	$2,047	14	60	76.67%	$1,569
390	POLE, WOOD 35 FOOT JOINTLY OWNED	1997	647.65	364	1.58	$1,023	14	60	76.67%	$784
391	POLE, WOOD 40 FOOT FULLY OWNED	1997	2,419.44	364	1.58	$3,823	14	60	76.67%	$2,931
392	POLE, WOOD 40 FOOT JOINTLY OWNED	1997	6,223.70	364	1.58	$9,833	14	60	76.67%	$7,539
393	POLE, WOOD 40 FOOT JOINTLY OWNED	1997	300.00	364	1.58	$474	14	60	76.67%	$363
394	POLE, WOOD 45 FOOT FULLY OWNED	1997	2,003.12	364	1.58	$3,165	14	60	76.67%	$2,427
395	POLE, WOOD 45 FOOT JOINTLY OWNED	1997	3,505.45	364	1.58	$5,539	14	60	76.67%	$4,247
396	POLE, WOOD 50 FOOT JOINTLY OWNED	1997	963.78	364	1.58	$1,523	14	60	76.67%	$1,168
397	APPURTENANCE	1998	24,621.52	364	1.57	$38,656	13	60	78.33%	$30,279
398	POLE, WOOD 30 FOOT FULLY OWNED	1998	1,460.58	364	1.57	$2,293	13	60	78.33%	$1,796
399	POLE, WOOD 30 FOOT JOINTLY OWNED	1998	365.14	364	1.57	$573	13	60	78.33%	$449
400	POLE, WOOD 35 FOOT FULLY OWNED	1998	1,603.49	364	1.57	$2,517	13	60	78.33%	$1,972
401	POLE, WOOD 35 FOOT JOINTLY OWNED	1998	1,924.18	364	1.57	$3,021	13	60	78.33%	$2,366
402	POLE, WOOD 40 FOOT FULLY OWNED	1998	3,446.44	364	1.57	$5,411	13	60	78.33%	$4,238
403	POLE, WOOD 40 FOOT FULLY OWNED	1998	1,445.54	364	1.57	$2,269	13	60	78.33%	$1,777
404	POLE, WOOD 40 FOOT JOINTLY OWNED	1998	15,900.94	364	1.57	$24,964	13	60	78.33%	$19,554
405	POLE, WOOD 45 FOOT FULLY OWNED	1998	3,429.13	364	1.57	$5,384	13	60	78.33%	$4,217
406	POLE, WOOD 45 FOOT JOINTLY OWNED	1998	4,800.77	364	1.57	$7,537	13	60	78.33%	$5,904
407	POLE, WOOD 50 FOOT FULLY OWNED	1998	1,028.73	364	1.57	$1,615	13	60	78.33%	$1,265
408	APPURTENANCE	1999	19,691.07	364	1.55	$30,521	12	60	80.00%	$24,417
409	POLE, WOOD 30 FOOT FULLY OWNED	1999	192.18	364	1.55	$298	12	60	80.00%	$238
410	POLE, WOOD 30 FOOT JOINTLY OWNED	1999	1,537.45	364	1.55	$2,383	12	60	80.00%	$1,906
411	POLE, WOOD 35 FOOT FULLY OWNED	1999	1,045.46	364	1.55	$1,620	12	60	80.00%	$1,296
412	POLE, WOOD 40 FOOT JOINTLY OWNED	1999	11,999.40	364	1.55	$18,599	12	60	80.00%	$14,879
413	POLE, WOOD 45 FOOT FULLY OWNED	1999	2,224.70	364	1.55	$3,448	12	60	80.00%	$2,758
414	POLE, WOOD 45 FOOT JOINTLY OWNED	1999	2,966.27	364	1.55	$4,598	12	60	80.00%	$3,678
415	POLE, WOOD 50 FOOT FULLY OWNED	1999	1,042.48	364	1.55	$1,616	12	60	80.00%	$1,293

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416	APPURTENANCE	2000	17,966.69	364	1.51	$27,130	11	60	81.67%	$22,157
417	POLE, WOOD 30 FOOT FULLY OWNED	2000	259.21	364	1.51	$391	11	60	81.67%	$319
418	POLE, WOOD 30 FOOT JOINTLY OWNED	2000	259.21	364	1.51	$391	11	60	81.67%	$319
419	POLE, WOOD 35 FOOT FULLY OWNED	2000	1,224.70	364	1.51	$1,849	11	60	81.67%	$1,510
420	POLE, WOOD 35 FOOT JOINTLY OWNED	2000	1,416.71	364	1.51	$2,139	11	60	81.67%	$1,747
421	POLE, WOOD 40 FOOT JOINTLY OWNED	2000	12,016.20	364	1.51	$18,144	11	60	81.67%	$14,818
422	POLE, WOOD 45 FOOT FULLY OWNED	2000	577.66	364	1.51	$872	11	60	81.67%	$712
423	POLE, WOOD 45 FOOT JOINTLY OWNED	2000	6,931.91	364	1.51	$10,467	11	60	81.67%	$8,548
424	POLE, WOOD 50 FOOT JOINTLY OWNED	2000	547.70	364	1.51	$827	11	60	81.67%	$675
425	APPURTENANCE	2001	19,943.18	364	1.46	$29,117	10	60	83.33%	$24,263
426	APPURTENANCE	2001	2,797.37	364	1.46	$4,084	10	60	83.33%	$3,403
427	POLE, WOOD 30 FOOT FULLY OWNED	2001	412.94	364	1.46	$603	10	60	83.33%	$502
428	POLE, WOOD 35 FOOT JOINTLY OWNED	2001	1,023.00	364	1.46	$1,494	10	60	83.33%	$1,245
429	POLE, WOOD 40 FOOT FULLY OWNED	2001	22,039.78	364	1.46	$32,178	10	60	83.33%	$26,814
430	POLE, WOOD 45 FOOT FULLY OWNED	2001	3,640.52	364	1.46	$5,315	10	60	83.33%	$4,429
431	POLE, WOOD 45 FOOT FULLY OWNED	2001	3,122.44	364	1.46	$4,559	10	60	83.33%	$3,799
432	POLE, WOOD 45 FOOT JOINTLY OWNED	2001	7,493.87	364	1.46	$10,941	10	60	83.33%	$9,117
433	POLE, WOOD 50 FOOT FULLY OWNED	2001	3,753.23	364	1.46	$5,480	10	60	83.33%	$4,566
434	APPURTENANCE	2002	26,228.27	364	1.43	$37,506	9	60	85.00%	$31,880
435	APPURTENANCE	2002	165.69	364	1.43	$237	9	60	85.00%	$201
436	APPURTENANCE	2002	1,535.83	364	1.43	$2,196	9	60	85.00%	$1,867
437	POLE, WOOD 30 FOOT FULLY OWNED	2002	243.32	364	1.43	$348	9	60	85.00%	$296
438	POLE, WOOD 35 FOOT JOINTLY OWNED	2002	408.38	364	1.43	$584	9	60	85.00%	$496
439	POLE, WOOD 40 FOOT FULLY OWNED	2002	1,033.76	364	1.43	$1,478	9	60	85.00%	$1,256
440	POLE, WOOD 40 FOOT FULLY OWNED	2002	28,012.93	364	1.43	$40,058	9	60	85.00%	$34,049
441	POLE, WOOD 40 FOOT JOINTLY OWNED	2002	313.58	364	1.43	$448	9	60	85.00%	$381
442	POLE, WOOD 45 FOOT FULLY OWNED	2002	17,308.24	364	1.43	$24,751	9	60	85.00%	$21,038
443	POLE, WOOD 45 FOOT JOINTLY OWNED	2002	784.93	364	1.43	$1,122	9	60	85.00%	$954
444	POLE, WOOD 50 FOOT FULLY OWNED	2002	3,001.97	364	1.43	$4,293	9	60	85.00%	$3,649
445	POLE, WOOD 55 FOOT FULLY OWNED	2002	10,330.70	364	1.43	$14,773	9	60	85.00%	$12,557
446	POLE, WOOD 60 FOOT FULLY OWNED	2002	14,015.17	364	1.43	$20,042	9	60	85.00%	$17,036
447	APPURTENANCE	2003	3,966.87	364	1.39	$5,514	8	60	86.67%	$4,779
448	POLE, WOOD 30 FOOT FULLY OWNED	2003	(300.00)	364	1.39	-$417	8	60	86.67%	-$361
449	POLE, WOOD 35 FOOT FULLY OWNED	2003	(1,800.00)	364	1.39	-$2,502	8	60	86.67%	-$2,168
450	POLE, WOOD 35 FOOT JOINTLY OWNED	2003	2,037.97	364	1.39	$2,833	8	60	86.67%	$2,455
451	POLE, WOOD 40 FOOT FULLY OWNED	2003	(3,300.00)	364	1.39	-$4,587	8	60	86.67%	-$3,976
452	POLE, WOOD 40 FOOT JOINTLY OWNED	2003	2,257.81	364	1.39	$3,138	8	60	86.67%	$2,720
453	POLE, WOOD 45 FOOT FULLY OWNED	2003	(5,482.00)	364	1.39	-$7,620	8	60	86.67%	-$6,604
454	POLE, WOOD 45 FOOT JOINTLY OWNED	2003	3,318.43	364	1.39	$4,613	8	60	86.67%	$3,998
455	POLE, WOOD 50 FOOT FULLY OWNED	2003	(2,592.00)	364	1.39	-$3,603	8	60	86.67%	-$3,123
456	APPURTENANCE	2004	3,939.95	364	1.30	$5,122	7	60	88.33%	$4,524
457	APPURTENANCE	2004	2,347.20	364	1.30	$3,051	7	60	88.33%	$2,695
458	APPURTENANCE	2004	1,910.87	364	1.30	$2,484	7	60	88.33%	$2,194
459	POLE, WOOD 30 FOOT FULLY OWNED	2004	331.65	364	1.30	$431	7	60	88.33%	$381
460	POLE, WOOD 30 FOOT JOINTLY OWNED	2004	84.50	364	1.30	$110	7	60	88.33%	$97
461	POLE, WOOD 35 FOOT FULLY OWNED	2004	635.69	364	1.30	$826	7	60	88.33%	$730
462	POLE, WOOD 35 FOOT JOINTLY OWNED	2004	411.67	364	1.30	$535	7	60	88.33%	$473

	A	B	C	D	E	F	G	H	I	J
Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
463	POLE, WOOD 35 FOOT JOINTLY OWNED	2004	875.78	364	1.30	$1,139	7	60	88.33%	$1,006
464	POLE, WOOD 40 FOOT JOINTLY OWNED	2004	2,679.99	364	1.30	$3,484	7	60	88.33%	$3,077
465	POLE, WOOD 40 FOOT JOINTLY OWNED	2004	1,027.40	364	1.30	$1,336	7	60	88.33%	$1,180
466	POLE, WOOD 45 FOOT FULLY OWNED	2004	1,917.69	364	1.30	$2,493	7	60	88.33%	$2,202
467	POLE, WOOD 45 FOOT JOINTLY OWNED	2004	3,388.53	364	1.30	$4,405	7	60	88.33%	$3,891
468	POLE, WOOD 50 FOOT JOINTLY OWNED	2004	377.65	364	1.30	$491	7	60	88.33%	$434
469	APPURTENANCE	2005	10,102.83	364	1.26	$12,730	6	60	90.00%	$11,457
470	APPURTENANCE	2005	2,284.22	364	1.26	$2,878	6	60	90.00%	$2,590
471	APPURTENANCE	2005	11,117.32	364	1.26	$14,008	6	60	90.00%	$12,607
472	APPURTENANCE	2005	685.44	364	1.26	$864	6	60	90.00%	$778
473	POLE, WOOD 30 FOOT JOINTLY OWNED	2005	255.25	364	1.26	$322	6	60	90.00%	$290
474	POLE, WOOD 35 FOOT FULLY OWNED	2005	1,462.71	364	1.26	$1,843	6	60	90.00%	$1,659
475	POLE, WOOD 35 FOOT JOINTLY OWNED	2005	302.88	364	1.26	$382	6	60	90.00%	$344
476	POLE, WOOD 35 FOOT JOINTLY OWNED	2005	(85.75)	364	1.26	-$108	6	60	90.00%	-$97
477	POLE, WOOD 40 FOOT JOINTLY OWNED	2005	1,279.23	364	1.26	$1,612	6	60	90.00%	$1,451
478	POLE, WOOD 40 FOOT JOINTLY OWNED	2005	201.60	364	1.26	$254	6	60	90.00%	$229
479	POLE, WOOD 40 FOOT JOINTLY OWNED	2005	4,784.98	364	1.26	$6,029	6	60	90.00%	$5,426
480	POLE, WOOD 40 FOOT JOINTLY OWNED	2005	1,924.77	364	1.26	$2,425	6	60	90.00%	$2,183
481	POLE, WOOD 45 FOOT FULLY OWNED	2005	5,918.88	364	1.26	$7,458	6	60	90.00%	$6,712
482	POLE, WOOD 45 FOOT JOINTLY OWNED	2005	(444.33)	364	1.26	-$560	6	60	90.00%	-$504
483	POLE, WOOD 45 FOOT JOINTLY OWNED	2005	11,916.68	364	1.26	$15,015	6	60	90.00%	$13,514
484	APPURTENANCE	2006	8,907.47	364	1.18	$10,511	5	60	91.67%	$9,635
485	APPURTENANCE	2006	721.07	364	1.18	$851	5	60	91.67%	$780
486	APPURTENANCE	2006	737.80	364	1.18	$871	5	60	91.67%	$798
487	APPURTENANCE	2006	10,474.91	364	1.18	$12,360	5	60	91.67%	$11,330
488	POLE, WOOD 35 FOOT JOINTLY OWNED	2006	1,793.06	364	1.18	$2,116	5	60	91.67%	$1,940
489	POLE, WOOD 40 FOOT FULLY OWNED	2006	989.48	364	1.18	$1,168	5	60	91.67%	$1,071
490	POLE, WOOD 40 FOOT JOINTLY OWNED	2006	13,051.17	364	1.18	$15,400	5	60	91.67%	$14,117
491	POLE, WOOD 40 FOOT JOINTLY OWNED	2006	2,121.64	364	1.18	$2,504	5	60	91.67%	$2,295
492	POLE, WOOD 45 FOOT FULLY OWNED	2006	4,600.65	364	1.18	$5,429	5	60	91.67%	$4,977
493	POLE, WOOD 45 FOOT FULLY OWNED	2006	1,316.95	364	1.18	$1,554	5	60	91.67%	$1,425
494	POLE, WOOD 45 FOOT JOINTLY OWNED	2006	1,124.54	364	1.18	$1,327	5	60	91.67%	$1,216
495	POLE, WOOD 50 FOOT FULLY OWNED	2006	3,231.67	364	1.18	$3,813	5	60	91.67%	$3,495
496	POLE, WOOD 55 FOOT FULLY OWNED	2006	2,401.19	364	1.18	$2,833	5	60	91.67%	$2,597
497	POLE, WOOD 70 FOOT FULLY OWNED	2006	3,712.89	364	1.18	$4,381	5	60	91.67%	$4,016
498	APPURTENANCE	2007	2,829.40	364	1.14	$3,226	4	60	93.33%	$3,011
499	APPURTENANCE	2007	29,010.78	364	1.14	$33,072	4	60	93.33%	$30,866
500	POLE, WOOD 30 FOOT FULLY OWNED	2007	178.28	364	1.14	$203	4	60	93.33%	$189
501	POLE, WOOD 30 FOOT FULLY OWNED	2007	622.09	364	1.14	$709	4	60	93.33%	$662
502	POLE, WOOD 35 FOOT FULLY OWNED	2007	3,377.66	364	1.14	$3,851	4	60	93.33%	$3,594
503	POLE, WOOD 35 FOOT JOINTLY OWNED	2007	7,082.51	364	1.14	$8,074	4	60	93.33%	$7,535
504	POLE, WOOD 35 FOOT JOINTLY OWNED	2007	589.16	364	1.14	$672	4	60	93.33%	$627
505	POLE, WOOD 40 FOOT FULLY OWNED	2007	2,515.82	364	1.14	$2,868	4	60	93.33%	$2,677
506	POLE, WOOD 40 FOOT JOINTLY OWNED	2007	3,478.40	364	1.14	$3,965	4	60	93.33%	$3,701
507	POLE, WOOD 40 FOOT JOINTLY OWNED	2007	1,854.68	364	1.14	$2,114	4	60	93.33%	$1,973
508	POLE, WOOD 45 FOOT FULLY OWNED	2007	4,079.84	364	1.14	$4,651	4	60	93.33%	$4,341
509	POLE, WOOD 45 FOOT JOINTLY OWNED	2007	41,755.98	364	1.14	$47,602	4	60	93.33%	$44,427

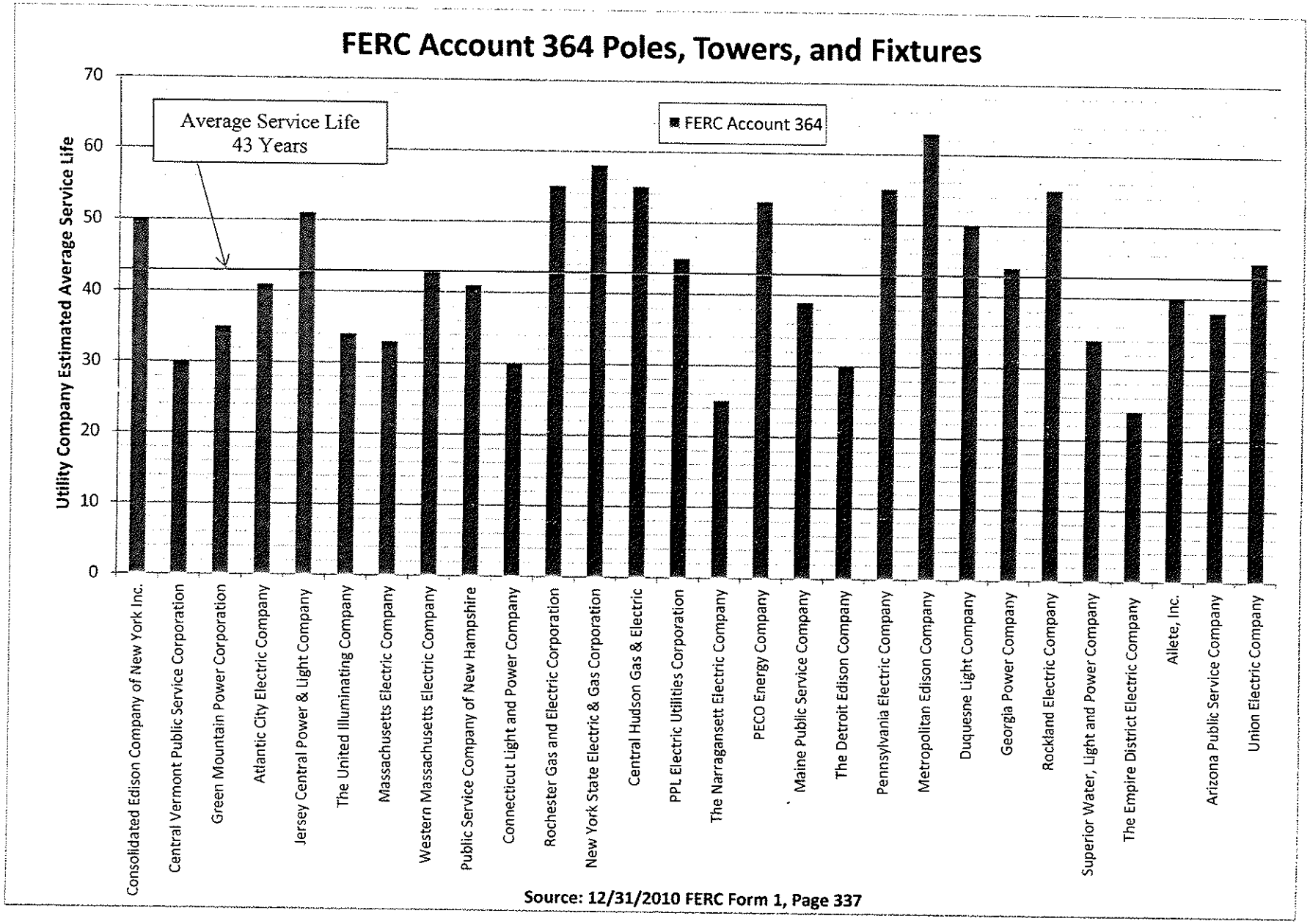
	A	B	C	D	E	F	G	H	I	J
Table Row	DESCRIPTION	OC Year	Cost	FERC Account	Factor	Reproduction Cost New	Age	Life	Dep to Good	Reproduction Cost New Less IPD
510	POLE, WOOD 50 FOOT JOINTLY OWNED	2007	30,256.18	364	1.14	$34,492	4	60	93.33%	$32,191
511	POLE, WOOD 55 FOOT JOINTLY OWNED	2007	4,163.78	364	1.14	$4,747	4	60	93.33%	$4,430
512	APPURTENANCE	2008	5,716.16	364	1.08	$6,173	3	60	95.00%	$5,864
513	APPURTENANCE	2008	3,950.33	364	1.08	$4,266	3	60	95.00%	$4,053
514	APPURTENANCE	2008	1,233.32	364	1.08	$1,332	3	60	95.00%	$1,265
515	APPURTENANCE	2008	708.39	364	1.08	$765	3	60	95.00%	$727
516	POLE, WOOD 30 FOOT FULLY OWNED	2008	919.48	364	1.08	$993	3	60	95.00%	$943
517	POLE, WOOD 30 FOOT FULLY OWNED	2008	306.47	364	1.08	$331	3	60	95.00%	$314
518	POLE, WOOD 30 FOOT JOINTLY OWNED	2008	698.81	364	1.08	$755	3	60	95.00%	$717
519	POLE, WOOD 35 FOOT FULLY OWNED	2008	742.28	364	1.08	$802	3	60	95.00%	$762
520	POLE, WOOD 35 FOOT JOINTLY OWNED	2008	1,843.21	364	1.08	$1,991	3	60	95.00%	$1,891
521	POLE, WOOD 35 FOOT JOINTLY OWNED	2008	316.35	364	1.08	$342	3	60	95.00%	$325
522	POLE, WOOD 40 FOOT JOINTLY OWNED	2008	6,687.63	364	1.08	$7,223	3	60	95.00%	$6,862
523	POLE, WOOD 40 FOOT JOINTLY OWNED	2008	2,821.70	364	1.08	$3,047	3	60	95.00%	$2,895
524	POLE, WOOD 40 FOOT JOINTLY OWNED	2008	1,371.73	364	1.08	$1,481	3	60	95.00%	$1,407
525	POLE, WOOD 45 FOOT JOINTLY OWNED	2008	608.91	364	1.08	$658	3	60	95.00%	$625
526	POLE, WOOD 50 FOOT JOINTLY OWNED	2008	(300.00)	364	1.08	-$324	3	60	95.00%	-$308
527	POLE, WOOD 50 FOOT JOINTLY OWNED	2008	3,467.69	364	1.08	$3,745	3	60	95.00%	$3,558
528	APPURTENANCE	2009	4,728.67	364	1.04	$4,918	2	60	96.67%	$4,754
529	APPURTENANCE	2009	3,198.31	364	1.04	$3,326	2	60	96.67%	$3,215
530	POLE, WOOD 35 FOOT JOINTLY OWNED	2009	440.23	364	1.04	$458	2	60	96.67%	$443
531	POLE, WOOD 40 FOOT FULLY OWNED	2009	2,030.20	364	1.04	$2,111	2	60	96.67%	$2,041
532	POLE, WOOD 40 FOOT FULLY OWNED	2009	2,287.90	364	1.04	$2,379	2	60	96.67%	$2,300
533	POLE, WOOD 40 FOOT JOINTLY OWNED	2009	2,793.16	364	1.04	$2,905	2	60	96.67%	$2,808
534	POLE, WOOD 45 FOOT FULLY OWNED	2009	1,710.48	364	1.04	$1,779	2	60	96.67%	$1,720
535	POLE, WOOD 45 FOOT FULLY OWNED	2009	383.20	364	1.04	$399	2	60	96.67%	$386
536	POLE, WOOD 45 FOOT JOINTLY OWNED	2009	1,403.31	364	1.04	$1,459	2	60	96.67%	$1,410
537	POLE, WOOD 45 FOOT JOINTLY OWNED	2009	734.60	364	1.04	$764	2	60	96.67%	$739
538	POLE, WOOD 50 FOOT JOINTLY OWNED	2009	700.72	364	1.04	$729	2	60	96.67%	$705
539	APPURTENANCE	2010	3,992.78	364	1.04	$4,152	1	60	98.33%	$4,083
540	APPURTENANCE	2010	3,084.05	364	1.04	$3,207	1	60	98.33%	$3,153
541	APPURTENANCE	2010	1,084.54	364	1.04	$1,128	1	60	98.33%	$1,109
542	POLE, WOOD 35 FOOT FULLY OWNED	2010	492.99	364	1.04	$513	1	60	98.33%	$504
543	POLE, WOOD 35 FOOT JOINTLY OWNED	2010	3,032.85	364	1.04	$3,154	1	60	98.33%	$3,101
544	POLE, WOOD 40 FOOT JOINTLY OWNED	2010	5,887.57	364	1.04	$6,123	1	60	98.33%	$6,021
545	POLE, WOOD 40 FOOT JOINTLY OWNED	2010	2,508.68	364	1.04	$2,609	1	60	98.33%	$2,565
546	POLE, WOOD 40 FOOT JOINTLY OWNED	2010	7,837.50	364	1.04	$8,151	1	60	98.33%	$8,015
547	POLE, WOOD 45 FOOT FULLY OWNED	2010	678.27	364	1.04	$705	1	60	98.33%	$693
548	POLE, WOOD 45 FOOT JOINTLY OWNED	2010	298.49	364	1.04	$310	1	60	98.33%	$305
549	POLE, WOOD 45 FOOT JOINTLY OWNED	2010	2,516.51	364	1.04	$2,617	1	60	98.33%	$2,573
550	APPURTENANCE	2011	9,455.26	364	1.00	$9,455	0	60	100.00%	$9,455
551	APPURTENANCE	2011	795.94	364	1.00	$796	0	60	100.00%	$796
552	POLE, WOOD 30 FOOT JOINTLY OWNED	2011	2,389.02	364	1.00	$2,389	0	60	100.00%	$2,389
553	POLE, WOOD 35 FOOT FULLY OWNED	2011	1,728.24	364	1.00	$1,728	0	60	100.00%	$1,728
554	POLE, WOOD 35 FOOT JOINTLY OWNED	2011	1,948.80	364	1.00	$1,949	0	60	100.00%	$1,949
555	POLE, WOOD 35 FOOT JOINTLY OWNED	2011	1,421.48	364	1.00	$1,421	0	60	100.00%	$1,421
556	POLE, WOOD 40 FOOT JOINTLY OWNED	2011	8,097.38	364	1.00	$8,097	0	60	100.00%	$8,097

Utility Depreciation Study of Estimated Average Service Life Changes

	A	B	C	D	E	F	G	H	I	J	K	L
GES ID #	Utility	Footnote			Year	FERC ACCT	Year	FERC ACCT	Year	FERC ACCT	Percent Change	Formula
		2010	2001	1996		364		364		364		
1	Consolidated Edison Company of New York Inc.				2010	50	2001	40	1996	40	25.00%	(50-40)/40
2	Central Vermont Public Service Corporation				2010	30	2001	23	1996	23	30.43%	(30-23)/23
3	Green Mountain Power Corporation				2010	35	2001	34	1996	34	2.94%	(35-34)/34
4	Atlantic City Electric Company				2010	41	2001	n/a	1996	25	64.00%	(41-25)/25
5	Jersey Central Power & Light Company			[5]	2010	51	2001	27	1996	10	410.00%	(51-10)/10
6	The United Illuminating Company				2010	34	2001	26	1996	26	30.77%	(34-26)/26
7	Massachusetts Electric Company				2010	33	2001	33	1996	25	32.00%	(33-25)/25
8	Western Massachusetts Electric Company	[1]	[1]	[1]	2010	43	2001	46	1996	46	-6.52%	(43-46)/46
9	Public Service Company of New Hampshire	[1]	[1]		2010	41	2001	33	1996	25	64.00%	(41-25)/25
10	Connecticut Light and Power Company	[1]	[1]	[1]	2010	30	2001	31	1996	27	14.81%	(31-27)/27
11	Rochester Gas and Electric Corporation				2010	55	2001	36	1996	42	52.78%	(55-36)/36
12	New York State Electric & Gas Corporation				2010	58	2001	45	1996	45	28.89%	(58-45)/45
13	Central Hudson Gas & Electric				2010	55	2001	52	1996	n/a	5.77%	(55-52)/52
15	PPL Electric Utilities Corporation	[2]	[2]	[4]	2010	45	2001	51	1996	34	32.35%	(45-34)/34
16	The Narragansett Electric Company				2010	25	2001	26	1996	25	0.00%	(25-25)/25
17	PECO Energy Company				2010	53	2001	50	1996	50	6.00%	(53-50)/50
19	Maine Public Service Company				2010	39	2001	32	1996	29	34.48%	(39-29)/29
23	The Detroit Edison Company				2010	30	2001	30	1996	30	0.00%	(30-30)/30
26	Pennsylvania Electric Company			[3]	2010	55	2001	53	1996	45	22.22%	(55-45)/45
27	Metropolitan Edison Company				2010	63	2001	63	1996	52	21.15%	(63-52)/52
28	Duquesne Light Company			[2]	2010	50	2001	38	1996	38	31.58%	(50-38)/38
30	Georgia Power Company				2010	44	2001	36	1996	36	22.22%	(44-36)/36
32	Rockland Electric Company				2010	55	2001	n/a	1996	30	83.33%	(55-30)/30
33	Superior Water, Light and Power Company				2010	34	2001	34	1996	34	0.00%	(34-34)/34
34	The Empire District Electric Company				2010	24	2001	28	1996	24	0.00%	(24-24)/24
35	Allete, Inc.				2010	40	2001	35	1996	35	14.29%	(40-35)/35
36	Arizona Public Service Company	[2]			2010	38	2001	34	1996	34	11.76%	(38-34)/34
38	Union Electric Company				2010	45	2001	34	1996	34	32.35%	(45-34)/34

Source: 2010, 2001, and 1996 FERC Form 1, Estimated Avg. Service Life, Page 337, Column C, for the companies listed above, have been used for this study.

[1] Estimated Avg. Service Life is imputed from the published Applied Depr. rate (Percent), which has been divided into 1.
[2] The Estimated Avg. Service Life is the weighted average of multiple reported Estimated Avg. Service Life(s) for same FERC account. The format for the weighing is the plant base for each FERC account as a % of the total plant base for all of FERC accounts multiplied by the published Estimated Avg. Service Life for each account, the products of which are summed resulting in a weighted Estimated Avg. Life.
[3]Pennsylvania Electric Company reported two accounts in 1996, Pennsylvania and New York, the reported Pennsylvania account was used.
[4] PPL Electric Utilities Corporation reported multiple jurisdictions in 1996, the first reported jurisdiction UGI was used.
[5] Jersey Central Power & Light Company reported multiple divisions in 1996, the first reported division J.C was used.



Source: 12/31/2010 FERC Form 1, Page 337

Depreciation

"Depreciation is a penalty only insofar as the market recognizes it as causing a loss in value."[27] As a preface to this section on depreciation, NHEC is advocating for a value that is at or less than the book value of its property, namely the original cost less book depreciation. Book depreciation is that depreciation deducted from the original costs for tax purposes, rate setting purposes, and/or accounting purposes and does not represent market based actual depreciation of the property. A discussion of regulatory book depreciation follows in order to clarify the distinction between market based property depreciation as opposed to rate making and income tax depreciation.

It is important to note that there are significant differences between depreciation used in appraisal of real property and depreciation used in regulatory, rate making, and income tax accounting (book depreciation). The 13th Edition of the Appraisal of Real Estate addresses this concept by stating that *"Book depreciation is an accounting term that refers to the amount of capital recapture written off for an asset on the owner's books for income tax or financial reporting purposes." "Traditionally, book depreciation has not been market-derived like depreciation estimates developed by appraisers."*[28] The *National Association of Regulatory Utility Commissioners (NARUC) Public Utility Depreciation Practices* presents *"...background material and operating practices for determination of depreciation of public utility property for regulatory purposes for use primarily by staffs of various commissions."* The NARUC text describes depreciation accounting as *"the process of charging the book cost (generally stated as original cost in utility accounting) of depreciable property, adjusted for net salvage value, to operations over its useful life. The accounting principle upon which depreciation is based is called the matching principle. Under the matching principle, expenses are assigned to accounting periods in a manner that matches expenses with revenues.* The text goes on to explain that *"It should be emphasized that the primary objective of depreciation accounting is the allocation of cost to expense rather than valuation of the asset* [underlined for emphasis]." The text continues with *"...net book value is not intended to reflect the current market value of the property."*[29]

Simply put, book depreciation for utility property is not intended to represent market value and there are factors other than the actual condition of the property that drives the book depreciation of the property. These factors include IRS allowed depreciation schedules and Generally Accepted Accounting Practices (GAAP) which set forth various formula-based depreciation schedules. There is a clear delineation between depreciation used in appraisal of property which is market-based and specific to the property in its current condition and book depreciation for the same property. Book depreciation is the recapture of money that is invested in property and has no relationship to the three forms of depreciation recognized in the appraisal of real property.

[27] The Appraisal of Real Estate – Thirteenth Edition, pg. 393.
[28] Ibid, pg. 392.
[29] NARUC – Public Utility Depreciation Practices, pg. xiii.

not impossible. Additionally, utilities' accounting practices and especially their book depreciation methodologies vary significantly from one company to the next for the same property. These facts dictate the use of other methods of depreciation for special purpose utility property, other than book depreciation.

The economic age-life method can be employed in the valuation of utility property but requires an estimation of the effective age of the subject property and an estimation of its remaining and total economic life. Economic life is defined as "*The period over which improvements to real property contribute to property value.*"[31] Effective age is the age indicated by the condition of the property which may or may not match its actual chronological age. NHEC provides the age of its property which is used to calculate its depreciation, but not for the economic age-life method.

If the economic age-life method is used, it is very important that the appraiser uses the correct **Effective Age** in estimating depreciation for the subject and not the **Chronological Age**. A common mistake in estimating depreciation is to select **Economic Life** (usually the utility's estimated average service life) and applying the **Chronological Age** (actual age) to estimate depreciation. The appropriate life to use with the **Chronological Age** is the **useful physical life.** If the mistake is made the depreciation estimated has the effect of **Double Counting** depreciation for the subject property.

When the estimated average service life, a regulatory and IRS concept, is used as the economic life for utility property by appraisers, the average service life has been developed from the retirement of money and not property. In the regulatory development of the average service life, all forms of depreciation are accounted for, plus an additional margin of depreciation to assure that the current ratepayers are paying off the property. The use of an average and net salvage accelerates these regulatory principles even more.

In the appraisal of real property, the economic age-life method also accounts for all forms of depreciation, including physical deterioration and functional and external obsolescence, but a common error made by appraisers is to apply additional depreciation, such as functional and economic, to property that has already been depreciated by using the economic age-life method, which already includes all forms of depreciation. This inappropriate method of estimating depreciation creates the double counting.

It is important to note that the estimated average service lives used by utilities have been reduced by so-called "negative salvage", which is basically the utility asking the ratepayers to pay it today for a promise by the utility to possibly remove that property tomorrow. There is no regulatory oversight of negative salvage once established. Negative salvage has the effect of accelerating depreciation and cash flows for the utility. The use of negative salvage is purely speculative in nature. It is an accounting process that speculates on the future possibility and costs of removing property and deducts those costs at the present time, some of which may not be incurred at all, or some of which may not be incurred for up to 100 years. Negative salvage generally assumes a negative cost and does not account for the potential

[31] The Appraisal of Real Estate – Thirteenth Edition, pg. 413.

future salvage value of property being removed. FASB has required utilities to stop recouping negative salvage, but the regulators have not.

The breakdown method of depreciation is defined in the 13th Edition as the *"...most comprehensive and detailed way to measure depreciation because it segregates total depreciation into individual component parts."* Additionally, the breakdown method allows for the separation of the individual types of depreciation. The use of the breakdown method requires accurate estimations of the **useful physical lives** of the property which can be used along with its **actual chronological ages** to estimate the depreciation. The breakdown method is used in this report.

The question for the appraiser becomes "What is the appropriate useful physical life for various components of utility property?" The answer to this question can be found in the market, which includes, among other things, a National Grid/NIMO asset condition report. This is one of the most comprehensive condition and life studies prepared in the region and is discussed further in this report.

Utilities are subject to governmental regulation, which acts as a substitute for market competition. Regulation assures that, in exchange for a franchise and monopolistic rights, the utility provides customers with an acceptable level of service at fair and reasonable rates. The allowable components of customer rates considered in the regulatory process include operation and maintenance expenses, taxes, a return on investment and accumulated depreciation expenses.
The term "Depreciation" when used for the establishment of customer rates refers to an amount used to recapture capital. As such, when used for utility ratemaking purposes, it is not a term of appraisal, but rather a term of accounting.[32] Accounting depreciation is used for the distribution of costs over an estimated service life of a unit. Accounting depreciation is a process of allocation not of valuation.

A factor used in establishing utility depreciation allowances in rates is an estimate of the average service life of the utility property. The estimated average service lives are developed by statistical mortality studies that consider retirements of property for a number of different reasons, but uses money, not property, as the measure. The age of property removed from service (retired) for any reason, as measured by money and not units of property is used to develop an estimate of the average service life and future monetary retirement patterns. The National Association of Regulatory Commissioners cites a number of reasons for the retirement of utility property which are set forth in Table 11 below.[33]

[32] The book depreciation for the improvements on a parcel of real estate is based on historical cost or another previously established figure that has no relation to current market value. Moreover, book depreciation is based on a formula designed for tax purposes. The capitalization method and procedure selected provide for the recapture of invested capital, so including depreciation in the operating expense statement is redundant. The Appraisal of Real Estate, 14th Edition, pg. 487.

[33] Public Utility Depreciation Practices , August 1996. (Washington DC: National Association of Regulatory Utility Commissioners), pgs. 14-16.

TABLE 11
Reasons for the Retirement of Utility Property

1. Physical Factors			
	a.	Wear and tear	
	b.		Decay and deterioration
	c.		Action of the elements and accidents
2. Functional Factors			
	a.	Inadequacy	
	b.	Obsolescence	
	c.	Changes in the art and technology	
	d.	Changes in demand	
	e.	Requirements of public authorities	
	f.	Management discretion	
		i.	Retire production plant, rather than extend its life
		ii.	Sell and lease back plant to affect cash flow
		iii.	Replace aging plant with new plant to enhance corporate image
		iv.	Contract out functions which were formerly done by utility personnel and equipment in an effort to reduce costs
		v.	Place surplus plant in storage in anticipation of future growth in demand
		vi.	Retain removed plant that would normally be scrapped in anticipation of repairing it for reuse
3. Contingent Factors			
	a.	Casualties or disasters	
	b.	Extraordinary obsolescence	

As we have discussed earlier, book depreciation is not developed for appraisal purposes, but book depreciation can aid the appraiser as a reference point that will be less than the actual useful physical life. When all factors used to establish the estimate of service life are considered, it is reasonable to conclude that the minimum **useful physical** life of the property is at least greater than the utility's average estimated service life. It is the typical utility's objective to promote service lives which are substantially less than actual useful life to recover all investment of all property before any property retirement and to accelerate cash flows. The appraiser should also recognize that the service lives established for depreciation accounting reflect system wide averages. By definition, an average is a result of some properties within the system surviving longer than other properties. A review of the subject property is necessary to estimate where its life may fall in that relationship.

It should be noted that of the 3.2% of NHEC's poles in Gilmanton that are older than 60 years, 4 of them are older than 70 years. Each year the Town requests information from NHEC about planned retirements by community and the company has not indicated its intention to retire any poles in the Town. Another important consideration in an analysis of the age of poles in a community is the amount of new residential growth and its

relationship to the addition of new poles. In a community where there has been no new growth of housing or businesses, the replacement of poles would generally be attributed to the replacement of damaged poles or the retirement of poles that are deemed unsafe to continue their use. However, in a newer subdivision, the addition of many new poles provides new services to the residences. An electric distribution system that is comprised of a number of new poles is generally due to the newer growth in the community and not the need for early replacement or retirement of the system's older poles.

We have also analyzed the NHEC work orders provided to the Town, looking for significant numbers of retired and replaced poles. Although it is difficult to breakout all of the individual costs in the work orders, we have generally identified replacement of poles due to damage from vehicles, storms, and fallen trees. In general we cannot find a pattern of pole and/or other property retirements in Gilmanton by NHEC. Therefore the company is replacing the poles on an as needed basis.

When considering the useful physical life of the property, we have considered the historical record, reports on the changes in technology, and the general state of the electric utility industry. Appendix I contains a sampling of references that provide for the estimation of distribution property longevity. A historical reference to the time period distribution property has been in service is also an indicator to useful physical lives. Reports of actual experience indicate that, with regular maintenance, the life of utility property exceeds the anticipated service lives used in regulatory proceedings by a large margin. References of this nature have been considered in the development of the appraisers' opinion of useful physical lives of utility property. NHEC confirmed the reported actual experience when, in 2009, it wrote that the company's oldest pole still survives and is tested to have "...67% of its original strength." [34] The company went on to explain that "...it is not uncommon for poles 50 years or older to retain much of their original strength due to natural growth and long-lasting preservative treatments..."[35] To further support the use of 60 years as the useful life of a distribution utility pole, we reference an article printed in the *Wood Pole Newsletter* which states that an "...80-year line life was assumed..." and that "...the number of poles needing replacement is typically limited to two to four percent every ten years after twenty years."[36]

For preparation of the NHEC report in this series of tax appeals in New Hampshire, we conducted a random sampling of NHEC poles and PSNH poles throughout southern New Hampshire to determine their age and probable remaining life to estimate a useful life for purposes of depreciation in these studies (aging study). This report is provided in Appendix H and indicates a useful life of 65 years. This independent field testing by us as appraisers corroborates the company's statement related to the long term life of the poles, the use of 60 years as a useful life for utility distribution poles, and the *Wood Pole Newsletter* estimating an 80 year line life.

[34] New Hampshire Electric Co-op Today, July 2009
[35] Ibid
[36] Wood Pole News Letter, Fall 1997, Please refer to Appendix I for the complete text.

Useful Physical Lives Summary

The purpose of the preceding discussion concerning the useful physical lives of transmission and distribution substation property is to arrive at market derived estimates of useful physical lives that can be applied to the estimated reproduction costs new for NHEC property under various FERC accounts.

In the development of the estimate of useful physical lives for the subject improvements we have considered the materials and design of the improvements, the regulatory service lives of NHEC's property, the age of the property, and the condition of the observable property. The quality of the materials used and any protective coatings or measures employed will influence the overall life of the property. Additionally we have relied upon an independent study that we performed on the useful lives of distribution poles. Our independent analysis taking a random sampling of poles in New England indicates that distribution poles have an average service life of at least 60 years. A copy of our independent study is provided in Appendix H.

We have supplemented these studies with a review of NHEC property in Gilmanton, which indicates a total pole count in Gilmanton of 3,274 poles of all ages. The company has reported that it has 236 poles with zero age, which indicates that NHEC does not know the actual age of the poles. The remaining 3,038 poles have known ages, which are broken down by percent surviving in ten-year increments. The average age of the NHEC poles in Gilmanton is 35.25 years and 23% of all NHEC poles are older than 35.25 years old. Given that the average age is 35.25 years old, the estimated useful life based on NHEC's pole data in Gilmanton is 70.5 years.

The following is the breakdown of the existing pole lives in Gilmanton.

- 3.2% of poles are 60 years old or older;
- 6.35% of poles are 50 years old or older;
- 15.7 of poles are 40 years old or older;
- 38.25% of poles are 30 years old or older;
- 58.5% of poles are 20 years old or older; and
- 82.6% of poles are 10 years old or newer.

Figure 23 provides a bar graph of the pole age distribution in Gilmanton.

Figure 23
NHEC Pole Count by Age

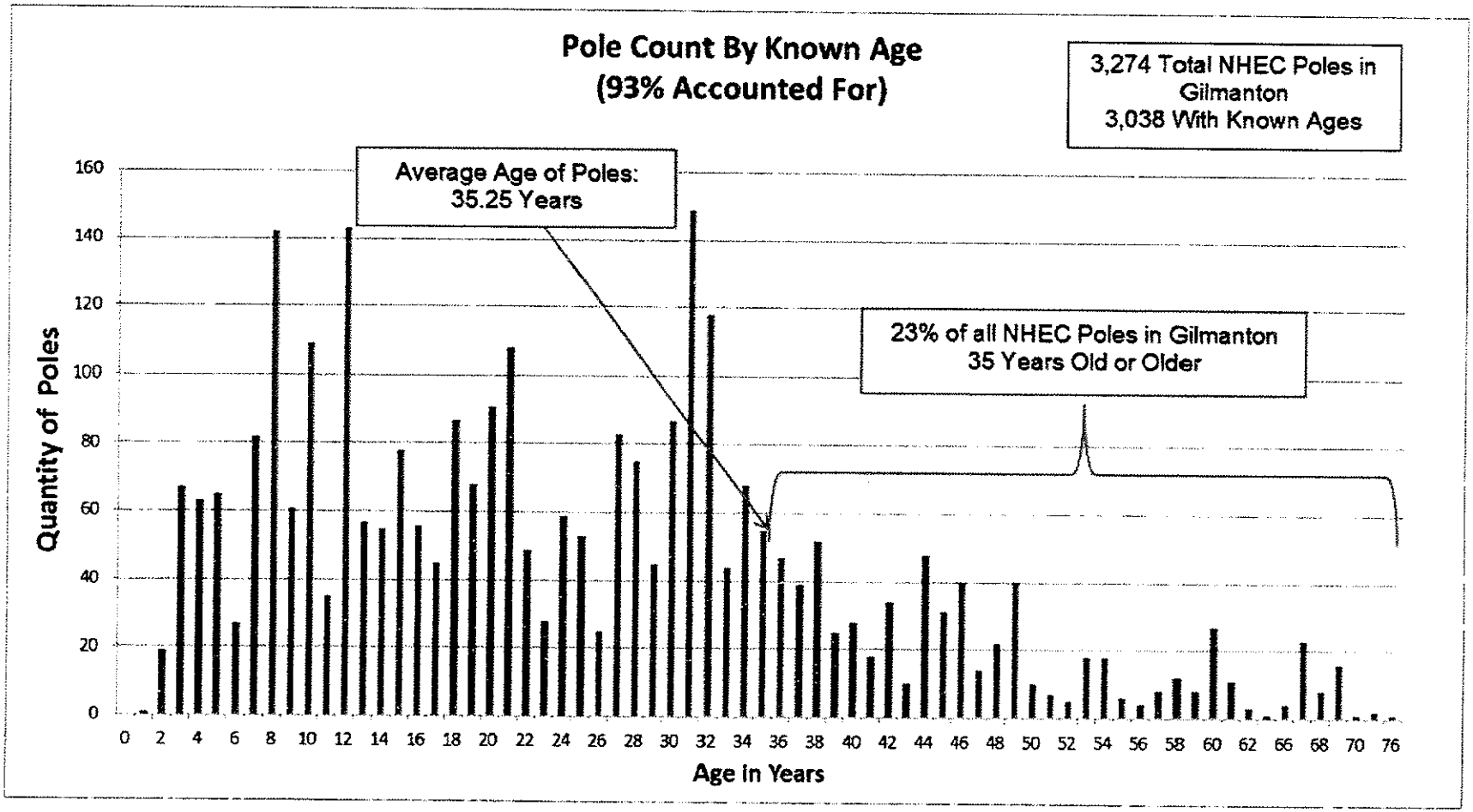


Table 12
George E. Sansoucy, P.E., LLC Estimated Useful Lives

	A		B
Row	Distribution Electric Plant		GES Estimated Useful Physical Life
	FERC Acct.	Description	
1	361	Structures and Improvements	90
2	362	Station Equipment	65
3	364	Poles, Towers, and Fixtures (Wood):	60
4	365	Overhead Conductors	60
5	366	Underground Conduit	60
6	367	Underground Conductors and Devices	60
7	368	Line Transformers	50
8	369	Services	50
9	370	Meters	30
10	373	Street Lighting	40

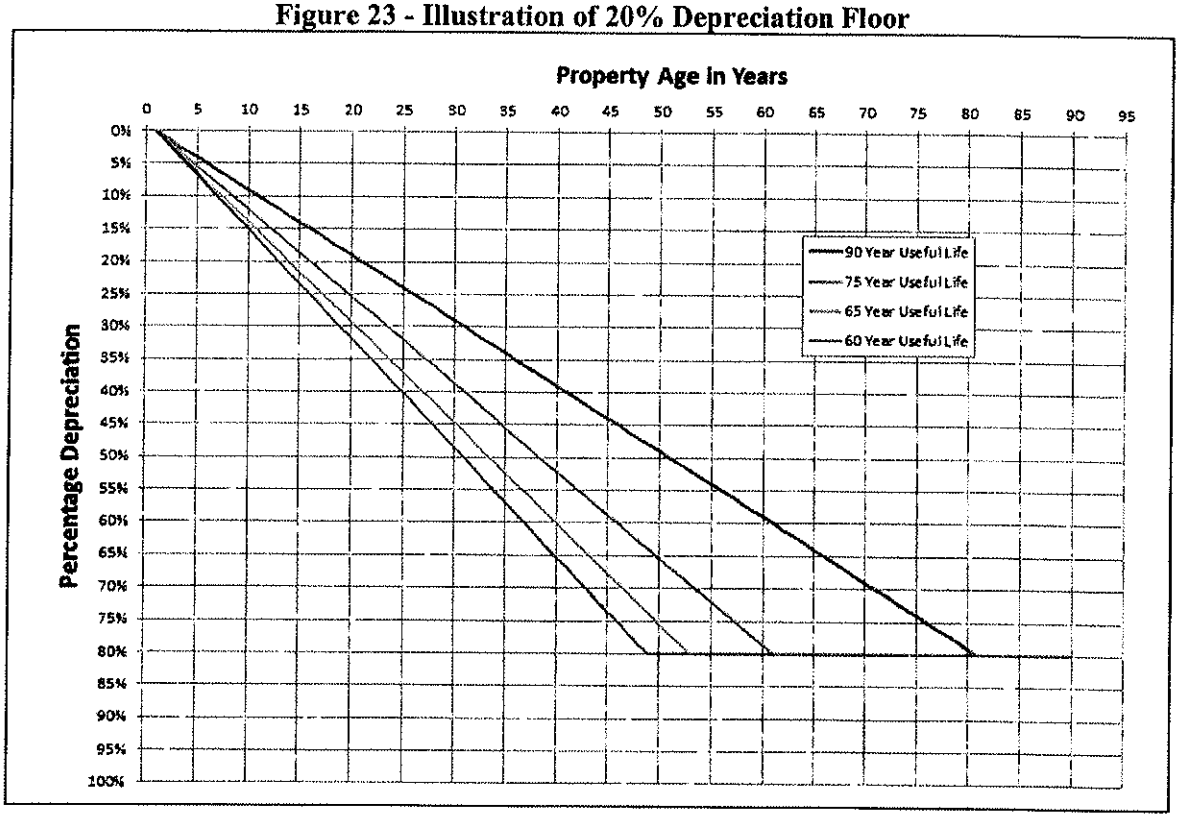
The incurable physical deterioration of the NHEC property in Gilmanton is estimated using a comparison of chronological age to useful physical life as set forth in the table above. The ratio of chronological age to useful life is calculated using the anticipated useful life of the improvement as the denominator and the chronological age of the improvement as the numerator:

$$\frac{Age}{Life} = Incurable\ Physical\ Deterioration$$

The first step of the equation is to determine the age of the property. In the Breakdown Method, the age of the property is represented by the **actual chronological age**. The date of installation is subtracted from the date of valuation to determine age. For the purposes of this assignment, the date of installation is considered to be December 31 of the year any given item was first placed into service. As stated previously, the dates of valuation are April 1, 2010, April 1, 2011, and April 1, 2012 as the date placed in service and (December 31) is equivalent to January 1 of the following year. An item placed in service December 31, 1999 has an age of 4 years on January 1, 2004 (2004-[1999+1]=4).

The physical depreciation assigned to the subject property is based on the actual age of each item of property and the appraisers' estimate of the total useful life for each item. We have concluded that a maximum allowance for physical deterioration should be limited to 80% (20% to the good). Normal utility operation, maintenance, and capital replacement practices attempt to replace any element prior to a predictable failure. At the time of replacement, a portion of cost for permitting and design is retained for the continued use of the utility property as a whole. When the 20% (to the good) floor is applied to our selected useful physical lives shown above, the effect is that the useful physical lives are shortened, leaving the 20% floor. This maximum depreciation is in recognition that the electrical properties must be capable of operation without risk to the public until the time of its retirement and accounts for the engineering and other indirect costs associated with replacing a retired component. Figure 23 illustrates our concluded useful physical lives once the 20% floor is established. Please note that a property with a 60 year useful physical life stops depreciating when it is approximately 48 years old. The remaining 20% of its value represents the value of continued operation, the cost of engineering and other soft costs which are sunk and do not experience physical depreciation. 20% to good remains until the property is taken out of service.

Figure 23 - Illustration of 20% Depreciation Floor



The calculations used to estimate the overall incurable physical depreciation are found in the reproduction cost new less depreciation tables attached to this appraisal in Appendix C.

Summary of Depreciation

In summation, the three basic forms of depreciation (physical, functional and economic) are considered when estimating the fair market value of regulated special purpose property in Gilmanton and are considered independently for each category of property. In most cases, depreciation is assessed based on judgment or observed and/or calculated analysis. Where plant property is not visible, a reasonable estimate of plant life and performance is used. Economic depreciation is analyzed on a site specific, regulatory specific level for the utility property in Gilmanton. Functional and economic enhancements are treated the same way.

As a final note on depreciation, all units are expressed "to the good". For example, 80% "to the good" indicates a 20% reduction for depreciation.

Depreciation is then applied to the RCN based on the property's actual age and the estimated useful life as determined by the type of property. Please refer to Appendix C-1 through C-3 for the details of the quantity survey of the distribution property in Gilmanton.

Each year NHEC reports transformers and meters in addition to the FERC account property items, but does not report the age of the transformers and meters. These items are costed as discussed above and depreciated using the average (composite) depreciation of all of the reported distribution property items. For the purpose of this report, we have also included any reported CWIP and other property additions in the total RCNLD of the distribution property for the given year at the cost new. Any unclassified property reported by NHEC for a given year is added to the total RCNLD of the distribution property at the cost new.

NHEC has not provided the Town with complete continuing property records that have been updated by classifying closed work orders[38] so that the property added or retired in the work orders can be accounted for in the cost approach development. These work orders included the replacement of broken poles, defective transformers, and the addition of new services. Because we have not been provided with the proper classifications for the closed work orders, we have added the closed work orders to the RCNLD at the stated value, neither depreciated nor costed new. In subsequent years, the closed work orders are trended up and then depreciated.

Table 13 summarizes the reproduction cost new less depreciation of the distribution property in Gilmanton as of April 1, 2010, April 1, 2011, and April 1, 2012.

[38] Closed work orders are the records of completed jobs in the Town that have not classified into various accounting accounts. On annual basis we have requested the complete continuing property records but the company is unable or unwilling to provide them.